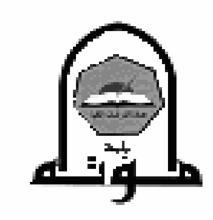


Mu'tah University
Deanship of Graduate Studies

Investigation of Factors Affecting On line Knowledge Sharing Usage Behavior of Knowledge Training Centers In the MENA Region

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Dedication

To my parents for their love, endless support and encouragement.

Seham Ahmad Alja'afreh

Acknowledgment

I would like to extend thanks to many people in many countries, who so generously contributed to the work presented in this thesis.

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I am proud of being a member of Telecentre Foundation and part of Jordan Knowledge Stations program ,so I hope this study will be useful to the institution That gave me a lot of practical experience and knowledge during the past seven years.

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Finally, but no means least, thanks go to my mother and father and all my family members for their almost unbelievable support. They are the most important people in my world and I dedicate this thesis to them.

Seham Ahmad Alja'afreh

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List of Abbreviations

MENA	Middle East and North Africa
FC	Facilitating Conditions
EE	Effort Expectancy
PE	Performance Expectancy
BI	Behavioral Intention
UB	Usage Behavior
UTAUT	Unified Theory Of Acceptance And Use Of Technology
KS	Knowledge Sharing
KM	Knowledge Management
ITA	The Information Technology Authority
ICT-TF	Egypt Information and Communication Technology Trust Fund
MCIT	Ministry of Communications and Information Technology
UNDP	United Nations Development Program
SCS	Syrian Computer Society
TRA	Theory Of Reasoned Action
TAM	Technology Acceptance Model
TPB	Theory Of Planned Behavior
UCSP	University College Shah Putra
CAATTs	Computer Assisted Audit Tools and Techniques

Abstract

Investigation of Factors Affecting online Knowledge Sharing Usage Behavior of Knowledge Training Centers in the MENA Region

Seham Ahmad Alja'afreh

Mu'tah University 2013

This research aimed to investigate the unified theory of acceptance and use of technology (UTAUT) model, which describes the factors affecting online knowledge sharing usage behavior of knowledge training centers, that follow the International Telecentre Foundation in MENA region.

Based on UTAUT this study investigates the effect of performance expectancy, effort expectancy, social influence, and facilitating conditions on managers' intention to use online KS.

Data were collected using online questionnaire consisting of 22-Likert type items from a convenience sample of 297 respondents of knowledge training centers' managers , data was analyzed using AMOS 16.0 to determine the interaction between the various factors .

The results confirm that performance expectancy, effort expectancy have a significantly positive effect on behavioral intention, which in turn has a positive effect to actual use of technology. Facilitating conditions have direct positive effect on the actual usage, while social influence has no significant effect on either intention to use or the actual usage.

Several recommendations and future research directions were proposed.

الملخص

اختبار العوامل المؤثرة في سلوك مشاركة المعرفة عبر الانترنت لمراكز التدريب المعرفية في منطقة الشرق الأوسط وشمال إفريقيا

سهام أحمد الجعافرة

جامعة مؤتة، 2013

هدفت هذه الدراسة إلى اختبار النموذج الموحد لاستخدام التكنولوجيا UTAUT والذي يصف العوامل المؤثرة في سلوك مشاركة المعرفة عبر الانترنت لمراكز التدريب والتي تتبع مؤسسة Telecentre الدولية في منطقة الشرق الأوسط وشمال إفريقيا.

واعتماداً على نظرية النموذج الموحد UTAUT، اختبرت هذه الدراسة أثر الأداء المتوقع، الجهد المتوقع، التأثير الاجتماعي والظروف التيسيرية على نية المديرين لمشاركة المعرفة عبر الانترنت.

وقد تم جمع البيانات باستخدام استبيان الكتروني يتكون من 22 بند على مقياس ليكرت الخماسي من عينة ملائمة بلغت 297 مستجيب من مدراء المراكز التدريبية، وقد تم تحليل البيانات باستخدام نموذج المعادلات البنائية AMOS 16.0 لاختبار العلاقات بين العوامل المختلفة.

وقد أكدت النتائج بأن عاملي الأداء المتوقع والجهد المتوقع لهما تأثير إيجابي ومباشر على النية السلوكية، والتي بدورها لها تأثير إيجابي على الاستخدام الفعلي للتكنولوجيا، أما الظروف المساعدة فلها تأثير إيجابي مباشر على الاستخدام الفعلي، بينما لم يكن للتأثير الاجتماعي أي تأثير على النية السلوكية أو الاستخدام الفعلي للتكنولوجيا، وقد طرحت هذه الدراسة عدداً من التوصيات والاتجاهات المستقبلية للبحث.

Chapter One
Research Background

This chapter outlines the theoretical research background, the rationale for the study, the research boundaries and locations for the study. It also provides the reader with information about the research aim and objectives, and subsequently, the structure of the study .

1.1 Introduction

As a result of the expansion of markets, the increasing demand of additional information and knowledge in different jobs, and the emergence of new organizations, managers have had to respond to these changes by emphasizing the aspect of 'knowledge'.

Ismail and Yusuf (2009) stated that knowledge is the most strategically significant resource for organizations. They added that knowledge allows organizations to gain a greater competitive advantage and also assists in developing superior performance amongst staff. Furthermore, Sharratt and Usoro (2003) noted that it is difficult, if not impossible, to maximize the value of knowledge resource without adequate understanding of how to manage knowledge throughout the organization.

Since the mid-1990s, the concept of knowledge management has been steadily evolved and transformed, especially when numerous firms were challenged with having overlapping information (Siefring, 2012).

With time, knowledge management has come to play a vital business function for a number of organizations, as they have appreciated the significant role it serves in establishing a competitive advantage.

In other words, organizations understand that knowledge management provides a competitive advantage through the use of efficient management of intellectual resources to create, spread, and applies all aspects of knowledge to achieve its overall goals (Grover & Davenport, 2001).

One of the most vital issues of knowledge management is how to share it. In the past, knowledge sharing among practitioners has typically been understood in the context of traditional learning approaches such as formal training workshops or seminars. In current times, technological advancements in communication are providing alternative learning approaches that are often more effective and enable easier accessibility in learning knowledge sharing, This was proven and supported by (Hara & Hew, 2007; Zamiri & Baqutayan, 2012), where learning through online communication enables users to solve their problems more adequately, get richer information, and take advantages of having indirect communication.

Moreover, Kasim, Yaacob and Malim (2013) mentioned that without new technology, most knowledge sharing practices would become less effective because technology helps to create, capture, organize, access, use, and share the intellectual assets of the organization.

A number of models have been developed to examine individuals' acceptance and intention to adopt new technologies in a world that is becoming increasingly dependent on information systems. Venkatesh, Morris and Davis (2003) developed the unified theory of acceptance and use of technology (UTAUT) which states that performance expectancy, effort expectancy, social influence and facilitating conditions are direct determinants of behavioural intention or use behaviour.

Based on literature review, and according to the researcher knowledge, there is a lack of the studies that tested UTAUT within MENA region contest. Therefore, this study aimed to identify the applicability of UTAUT model within this contest, through investigating the effect of performance expectancy, effort expectancy, social influence, and facilitating conditions on managers' behavioral intention to use online KS in the knowledge training centers .

1.2 Knowledge Training Centers in MENA Region

Knowledge training Centers (Telecenters) is a global program managed by Telecentre organization . It is a foundation that supports the establishment and sustainability of grassroots level Telecentres. These Telecentres are public places to access the Internet and other digital technologies that help promote personal and social development, offer crucial services, skills and opportunities to people living in remote and rural locations around the world (HTTP 1).

Since its launch at the World Summit on the Information Society in Tunis in 2005, the telecentre.org program has been instrumental in establishing Telecentres networks in more than 40 countries. Initially administered by the International Development Research Centre (IDRC) of Canada, the program is now managed by Telecentre.org Foundation, an independent, non-profit, non-stock international organization registered in Manila, Philippines .

Telecentres network in Middle East North Africa (MENA) is a virtual network that was formed as a result of partnership with the global Telecentre organization in 2008. The network is being managed from Cairo, Egypt at the headquarters of the Egypt ICT Trust Fund, which is a leading entity supported by United Nations Development Programme of Egypt and the Ministry of Communication and Information Technology (HTTP2) .

The researcher chose to apply the study in four Arab countries which are among the most active countries in the field of ICT i.e: Jordan,

Egypt, Syria and Oman . Here is a quick view at the telecentres applied in each region under the umbrella of Telecentre foundation

1.2.1 Jordan knowledge Stations :

Knowledge Stations are IT centres which have an effective tool to bridge the digital gaps between the governorates of the Kingdom, to help citizens gain skills, increase their competitive abilities in the job market, and improve their work efficiency.

Launched in 2001, the initiative adopted the concept of involving local communities in the establishment and management of the stations and having them operated by local institutions to promote a sense of responsibility and participation in making positive change at the community level. The National Information Technology Centre was authorized to implement the project, and prepared a study to determine the optimal distribution of Knowledge Stations in all the governorates and communities in the Kingdom. Today, there are about a 192 Knowledge Stations across the country. Tens of thousands of Jordanians of all ages and life styles have been trained in these facilities , learning everything from how to use a mouse to advanced strategies for using ICT to enhance their businesses, obtain health-care information or participate in e-government. The stations' walk-in services also provide affordable Internet access and services like copying, scanning and faxing for many Jordanians .

Because of its special nature, branches around Jordan and the large number of trainers and trainees, knowledge stations need to know how to manage knowledge and share it effectively. Significant changes in Knowledge Stations workplace have already taken place, but greater changes in the future are anticipated(HTTP 3) .

1.2.2 The Information Technology Authority ITA (e-Oman)

The Information Technology Authority (ITA) was formed in Oman as a legal autonomous body affiliated to the Minister of National Economy through a Royal Decree on May 31, 2006. As defined in the Royal Decree, the Information Technology Authority, through consolidation and activation of government policies, seeks to transform the Sultanate into a knowledge–based economy.

Through transforming Oman into a knowledge-based economy, the ITA’s aim is in attaining social and economical benefits for Omani society by using this technology “within” the policies of economic diversification and sustained development .

The ITA is responsible for implementing national IT infrastructure projects and supervising all projects related to implementation of the Digital Oman Strategy while providing professional leadership to various other e-Governance initiatives of the Sultanate.

In addition, the ITA undertakes several projects to increase technology penetration and empower its people with required digital literacy and higher levels of competence through training and innovation centers (HTTP 4) .

1.2.3 Egypt Information and Communication Technology Trust Fund

Egypt Information and Communication Technology Trust Fund (ICT-TF) was jointly established by the Ministry of Communications and Information Technology (MCIT) and the United Nations Development Program (UNDP) in January 2002. The ICT-TF is a mechanism that aims to investigate the different means by which ICTs can enrich the livelihood of Egyptian citizens, as well as to foster socio-economic development by creating public-private partnerships to support the use of ICTs.

The Fund currently sponsors several projects, in six main sectors; Community Development, Agriculture, Education, Health, ICT 4 Disabilities, and ICT for Micro, Small, and Medium enterprises (M/SMEs); Aiming to expanding development in Egypt through increasing awareness of ICT and its benefits as well as making it more accessible and affordable to all citizens (HTTP 5).

1.2.4 The Syrian Telecentre Project

The Syrian Telecentre Project is one of the development projects aimed at providing Information and Communication Technology for local and rural communities. The project has established Telecentres all over the country, especially in the most remote areas in order to give all Syrian people an equal opportunity to decrease the digital gap through spreading ICT culture, contributing to rural development, and enrolling at information society.

The Ministry of Communications and Technology has launched this project strategy and initiative to contribute to bridging the digital gap between the city and the countryside, in cooperation with the United Nation Development Program (UNDP), as part of its Strategic Program "ICT4Dev SYR/02/001" Program for Social and Economic Development to use information technology in the economic and social development starting in 2004 under title "Reefnet project". This project has so far established about 40 Telecentres across the Syrian provinces in rural areas, with the first telecentre inaugurated in April 2004.

The project, has been turned over to, and is currently being undertaken by, the Syrian Computer Society (SCS) and the Syria Trust for Development since 2009. The new Memorandum of Understanding between the Ministry of Communication and Technology, SCS, and the Syria Trust for Development plans to establish 45 new Telecentres

between 2010-2013. Currently, 18 new Telecentres have been established, bringing the total number of Telecentres established thus far by the project to 58 Telecentres (HTTP 6).

1.3 Problem of the Research

With the expansion of ICT, more organizations are focusing on the development of online business communities to help facilitate better flow of knowledge between employees (Blaskovich& McCall, 2008). Although ICT is said to be the most effective tools to support Knowledge Sharing (KS) (Wasko& Faraj, 2000), it is not a guarantee that KS activities within and between organizations are going to be successful (Cross &Baird, 2000). Knowledge represents the most important asset for any organization, and if the organization fails to disseminate the knowledge effectively, the capability of the company to be successful is in doubt. According to Blaskovich and McCall (2008), using online technology to reach and maintain knowledge sharing is more challenging with little or no face-to-face interaction. Thus the implementing of online KS in organizations can reduce this phenomenon and give each management the needed information.

One apparent challenge with knowledge is that it is often stored in individuals and may leave the company when the employee leaves. Subramaniand and Rajagopalan (2003**)** mentions that there are different circumstances that foster a work environment that inevitably leads to employees leaving their employer. More particularly, many employees do not wish to stay with the same organization for their entire life and hence many decide to leave their workplace so they can advance their careers in another organization. The outcome of this is that with employees moving in and out of a company, bringing knowledge with them but also taking knowledge with them as they go, an organization is potentially left with depleted knowledge resources. The challenge for organizations hence is how they can best benefit from an employees knowledge (even in their case to leave) and thereafter build upon the legacy of knowledge in order to achieve their business goals and outcomes.

With regarding to Telecentre foundation, it has many branches (training centers) in all over the world, those training centers need to be able to manage the knowledge and determine the best combination of factors that will ensure that there is an ideal and sustainable transfer of knowledge between branches and their respective managers. The underlying problem is that those factors that affect managers' behavior to actively engage in the online KS process are not fully understood or known. While several factors have been picked from the literature as having an influence on knowledge sharing behavior, empirical evidence for the existence and influence of these factors is fragmented.

Accordingly, this research will attempt to answer the following problematic question: **What are the Success Factors that can affect online KS usage behavior ?** In other words, **the current research will attempt to answer the following sub questions:**

1. To what extent do the proposed factors (performance expectancy, effort expectancy, social influence and facilitating condition) affect employee's behavioral intention to use online knowledge sharing?
2. To what extent do Telecentres possess and apply ICT in knowledge sharing?
3. How can the findings of this research be used to formulate improved online networking systems for the support of knowledge sharing?

1.4 Importance of the Research:

The importance of this research stems from the following:

1- Based on The fact that Knowledge sharing is directed and facilitated by certain factors, therefore Tecentres can certainly benefit from a more thorough understanding of the factors that are critical to the success of knowledge sharing. Furthermore, it will be better able to develop a suitable combination in knowledge sharing.

2- This research look forward to shed light on the concept of online KS and argue that this contemporary concept is one that should be considered by the different kinds of organizations.

3- This research is most likely the first to provide an integrative perspective of Success Factors for implementing online KS in knowledge training centers in MENA region.

4- The research offers valuable information which hopefully will give a help to achieve superior performance and increased development of the available resources of the organization in an expedited and efficient manner.

5- The expected results of this research will be of immense value to decision makers in other organizations. In fact, identifying the aspects of practice and implementation of the concept of sharing knowledge can assist an organization in facing their business constrains and problems. In short, this research ideally has the potential to provide vital information that assists the efficiency, success, and advancement of organizations in an ever changing technology area.

1.5 Research Aims and Objectives:

The aggregative aim of this research is to examine the validity of the UTAUT model within Telecentre Organization in MENA Region . This research entails the investigation of the main behavioral intention, performance expectancy, effort expectancy, social influence and facilitating

condition that contribute to the successful implementation of online knowledge sharing. Towards this end, the following objectives were proposed:

1. Investigation the impact of four main factors (performance expectancy, effort expectancy, social influence and facilitating condition) on behavioral intention and the degree of its support in the realization and success of online KS usage by Telecentres' managers.
2. Assessment of the applicability of information and communication technology as facilitating conditions in reinforcing knowledge sharing.
3. Providing theoretical and empirical recommendations to decision makers relating to what the best approaches to support application of online knowledge sharing.

1.6 Research Structure

This research was organized in a sequential manner in which the previous chapter introduces the next one, which in turn complement and built upon it.

1) The first chapter provides the background for the research, discussion of the research problem and questions, importance and objectives the of the research is outlined.
2) The second chapter presents the theoretical roots of online KS concept, also set forth the development of UTAUT model. This is supported by reviewing the findings of the literature as the basis in building the research model and hypotheses.
3) The third chapter describes the research design, questionnaire development and construction, question types and formats, research population and sample, survey administration and response profile. Also, this chapter discusses the technique for analyzing the data.
4) The Fourth chapter, presents validity and reliability of the research variables and instruments, displays the data analysis and presents the important results.
5) The Fifth Chapter, discusses the results, provides conclusions and implications and finally displays the research limitations and suggests ideas that might be useful for future research.

Chapter Two
Theoretical Framework and Literature Review

This chapter is divided into three main sections. The first section introduces the theoretical framework about the central concepts which constitute the core of this research. The second section provides a review of other relevant research to the research's problem that provides the basis for the development of testable hypotheses. , the final section examines the research model.

2.1. Theoretical Framework

This section discusses in detail the theoretical background of the research structure including history, development, importance, theories, models, and dimensions of the research structure. Thus providing the reader with an intrinsic understanding of the concepts of research constructs.

2.1.1 What Is Knowledge?

Knowledge, itself, is a complex concept, difficult to be incarnated, There have been many developments on the definition of knowledge by the scholars over the past years , although Knowledge and information are two different concepts, sometimes used interchangeably (Wang & Noe, 2010). As scholars have not agreed on a clear definition, the researcher will use the definition given by Wang and Noe (2010) and Ordaklou (2013) as it is based on an extensive review of the knowledge sharing literature. "Knowledge is information processed by individuals including ideas, facts expertise and judgments relevant for individual, team and organizational performance" (Wang& Noe, 2010; Ordaklou, 2013)

Nonaka and Takeuchi (1995) developed the concept ' ' knowledge ' ' to be categorized into two types : Tacit knowledge and Explicit knowledge, Tacit knowledge is specific and context bound. It can neither be expressed in words or sentences, nor in numbers or formulas. Its subjective and experience-based nature consists mostly of cognitive skills, such as beliefs, images, intuition and mental models as well as technical skills, such as craft and know-how (Nonaka, 1991; Smith, 2001). Explicit knowledge is context free and expressible in written form. It consists of objective and rational knowledge that can be expressed in words, sentences, numbers or formulas. It includes theoretical approaches, problem solving, manuals and databases (Nonaka, 1991). Both types of knowledge complement each other so far as knowledge creation and conversion in organizations is concerned. Explicit knowledge without the tacit insight quickly loses its meaning (Rai, 2011).

2.1.2 Importance of Knowledge as an Organizational Asset

The term " knowledge Asset " refers to the accumulated intellectual resources of your organization. It is the Knowledge possessed by your organization and its understanding memory, insights, cognitive and technical skills, and capabilities (Yan, 2007) .

Knowledge is a type of power and a basis for competitive advantage (Bano, Rehman & Aslam khan, 2010), therefore, there is a need for special attention and security that must be given. Furthermore, knowledge repositories within the firm are also to protect the core assets of the organization (Nonaka , Toyama & Konno,2000; Bano et al., 2010).

Al-Alawi, Al-Marzooqi and Mohammed (2007) argued that while traditional economies used to rely on tangible assets such as land and capital, today's economy has evolved in where knowledge is seen as being the primary production factor on which competitive advantage rests.Shortly The most important characteristics of knowledge are uniqueness and originality. Once created, knowledge cannot be imitated or substituted, which makes it a key strategic asset resource to all businesses (Cabrera & Cabrera, 2007).

In fact, systems that are designed for supporting knowledge may not immediately appear different from other types of information systems, but they will actually be meant to allow users to explain information and to capture their knowledge (Bano et al.2010).

2.1.3 Knowledge Management :

Knowledge management KM is popularized and has been spread across the industrial and the information research world (Bano et al.2010) It is also widely recognized and practiced by many organizations around the world, including Mena Region. This concept covers a scope of strategies and practices to enables the organization to create, spread, and apply all aspects of knowledge to achieve its overall goals (Ho, Kuo & Lin,2010) .

KM has been positioned as a business strategy that advances knowledge as a critical resource and the capacity to integrate pieces of it across the organization as distinguishing feature for the success within the market (Davenport & Prusak, 1998; Grant, 1996).

The purpose of knowledge management is to facilitate organizations that are able to access and reuse existing knowledge to enhance organizational processes (O'Leary, 1998) Thus, knowledge management supports people to innovate, to collaborate, and to make correct decisions efficiently; in short, it helps getting people to act by focusing on high-quality knowledge (Ho et al., 2010)

The experts have identified one of the important props in Knowledge Management, its knowledge sharing. Grant (1996) depict knowledge

sharing as an important focus in KM field, where knowledge may be managed to add value and competitive advantage(s) of businesses in an information-intensive society (Grover & Davenport, 2001).

2.1.4 Knowledge Sharing :

The best way of thinking about knowledge is understanding of its life cycle. Processes by which, knowledge is created, has shared and be used (Gilanina, Askari & Dastour,2013), Figure (1) shows The cycle of knowledge three stages.

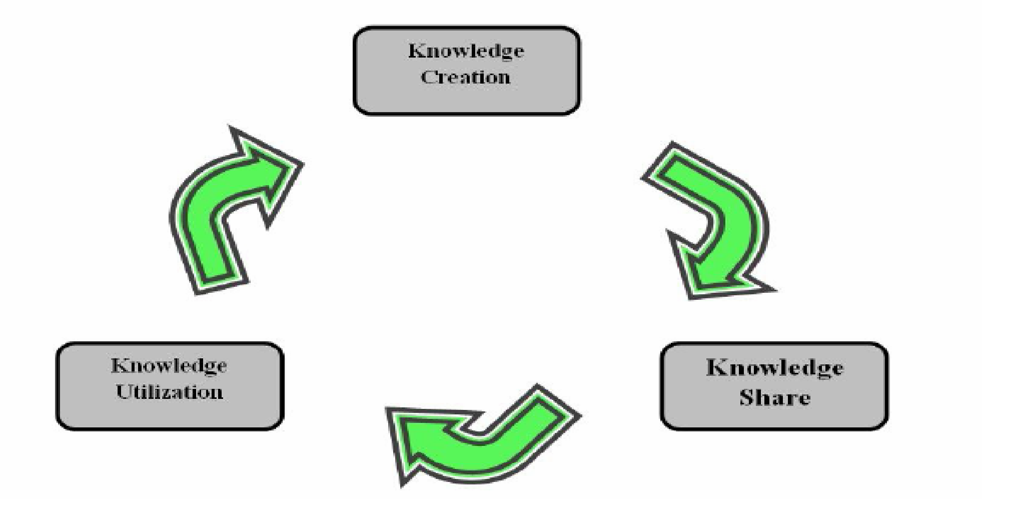


Figure (1)
Model of knowledge life cycle
Source : Gilaninia, Askari & Dastour(2013)

As shown in figure(1) Knowledge sharing refers to individuals propagating the knowledge they have acquired and distributing them within organizations (Ryu ,Hu & Han,2003; Lin& Chin,2009).The concept has been acknowledged as functioning as an important means of improving the performance of organizations (Chaston & Mangles 2000; Fuller-Love & Thomas 2004; Hughes, O'Regan & Sims 2009; Watson 2007).

Distinction between knowledge exchange, knowledge transfer and knowledge sharing was complex (Wang & Noe, 2010). Argote and Ingram (2000) see knowledge transfer as “the process through which one unit is affected by the experience of another”, which builds on the established source and recipient model (Ko, Kirsch & King, 2005). Ko et al. (2005) define knowledge transfer “as communication of knowledge from a source so that it is learned and applied by a recipient.” Yet, knowledge sharing is different to knowledge transfer and exchange as it excludes knowledge seeking (Wang & Noe, 2010).

Research has shown that knowledge sharing is positively related to firm innovation (Liao, 2006), increased productivity (Quigley, Tesluk,

Locke, & Bartol, 2007), and improved individual and firm performance (Verburg & Andriessen, 2011). These benefits from knowledge sharing have encouraged organizations to invest significant amounts of money and time into knowledge management projects (Amayah, 2011). therefore, the paradigm of "knowledge is power" according to Gurteen (1999), has to be adapted by organizations towards "sharing knowledge is power" (Schmidt , 2010) .

Knowledge can be shared on individual, work group, organizational or interorganizational level (Ipe,2003) to enable individual knowledge either tacit or explicit to be shared with others in the organization in many forms such as through telephone, chatting, and internet.

2.1.5 Knowledge Sharing Behavior :

Knowledge sharing between employees appears to be insufficiently promotable through directives. Because of their intangibility behaviors , knowledge sharing cannot be explicitly or directly rewarded (Desouza, 2003; Jarvenpaa & Staples, 2001;Schmidt , 2010). Additionally, Chen and Kenshuk (2009) indicated that sharing knowledge is often unnatural; hiding knowledge and looking secretly for knowledge from others are the natural behavior . Most people are unwilling to share their knowledge due to the fears of losing their dominion. This human nature necessitates a research to examine the human-related factors of online knowledge sharing. Yet, the factors that promote or discourage knowledge sharing behaviors in the organizational context are poorly understood (Bock, Zmud, Kim, dan Lee, 2005; Connelly & Kelloway, 2003; Rahab & Wahyuni, 2013) .

Scientific literature has not yet agreed on a definition of knowledge sharing behavior (Yi, 2009), out of the vast number of studies that go further than theoretic discussions, authors are focusing on the extent or frequency of knowledge sharing (Foss, Minbaeva, Pedersen & Reinholt, 2009; Kaše, Paauwe & Zupan ,2009; Zboralski, 2009; Chiu, Hsu, Wang, 2006), propensity or willingness to share (Cyr & Choo, 2010; De Vries, Van den Hoof, Ve Ridder& 2006; Teh & Chong, 2010; Bock et al., 2005) or on motivation to share (Gagné, 2009). The researcher agrees with the definition of Yi (2009), who sees knowledge sharing behavior as "set of individual behaviors involving sharing one's work-related knowledge and expertise with other members within one's organization, which can contribute to the ultimate effectiveness of the organization".

2.1.5 Technology And online Knowledge Sharing:

In the past, user communities were highly associated with situations in which the transmission of knowledge was both difficult and costly, Now Interactions can be face-to-face with a shared context or mediated via technology, such as by e-mail, text messaging, videoconferencing, or

weblogs, among others. However, technology can facilitate knowledge sharing, thereby allowing interpersonal communication to play a role in terms of knowledge sharing (Yu, Lu & Liu,2010) .

Although Technology is not the center of knowledge management, it still play a critical role as an enabler in increasing the level of knowledge sharing among employees (Anderson, 2000). Also The fundamental requirement of knowledge sharing has always been technology as what Lee and Al-Hawamdeh (2002) indicated, It plays an important transformational role in changing corporate culture to knowledge sharing (Gurteen, 1999) and essential to preserve the information and knowledge found in the warehouse data systems as it is the main source that allows the employees to achieve leading performance (Matusik & Hill, 1998).

The role of information technology in knowledge sharing has been studied by communication theorists (Binz-Scharf, 2003). For instance, Yates, Orlikowski and Okamura (1999) research focused on how a new electronic medium was used by a firm to identify the types of communication shaped by groups based on their needs. These manner of electronic communication were noted to have brought a change in the social interaction between groups . Thus, to McDermott (1999), current development in information technology encourage organizations to think of new ways of sharing knowledge such as storing documents in a common knowledge base and using electronic networks to share knowledge within the entire organization.

Employees of Knowledge Training centers have a variety of functions that they can use in mediating communication (such as e-mail, chat and, video conferencing , websites), Computers serve in making visible invisible, making sharing environments more functional where they can obtain knowledge and where tracking their objectives can be more purposeful for them.

2.1.6 Theoretical Models Of Technology Acceptance :

Based on a review of literature, this research integrates the concept of online KS into four main theories (TBP theory, TAM theory , TRP theory and UTAUT theory) to provide a model which aims to better explain factors that influence online KS behavior. But before getting into the details of the four theories that mentioned earlier, the researcher briefly reviews all the previous theories examined in the acceptance of technology and their determinants as shown in Table (1) .

Table (1)
Models and Theories of Individual Technology Acceptance

Constructs	Models and Theories
Attitude Subjective norm	Theory of Reasoned Action (TRA) by Fishbein & Ajzen (1975) derives from psychology to measure behavioral intention and performance.
Perceived Usefulness Perceived Ease of Use Subjective Norm Experience Voluntariness	Technology Acceptance Model (TAM) by Davis (1989) develops new scale with two specific variables to determine user acceptance of technology.
Image Job Relevance Output Quality Result Demonstrability indicates TAM2 only	Technology Acceptance Model 2 (TAM2) by Venkatesh & Davis (2000) is adapted from TAM and includes more variables.
Extrinsic Motivation Intrinsic Motivation	Motivational Model (MM) also stems from psychology to explain behavior. Davis. (1992) applies this model to the technology adoption and use.
Attitude Subjective norm Perceived Behavioral Control	Theory of Planned Behavior (TPB) by Ajzen (1991) extends TRA by including one more variable to determine intention and behavior.
Perceived Usefulness Perceived Ease of Use Attitude Subjective norm Perceived Behavioral Control	Combined TAM and TPB (C-TAM-TPB) by Taylor & Todd (1995).
Social Factors Affect Perceived Consequences (Complexity, Job-Fit, Long-Term Consequences of Use) Facilitating Conditions Habits	Model of PC Utilization (MPCU) by Thompson et al. (1991) is adjusted from the theory of attitudes and behavior by Triandis (1980) to predict PC usage behavior.
Relative Advantage Compatibility Complexity Absorbability Trialability Image Voluntariness of Use indicates Roger's constructs.	Innovation Diffusion Theory (IDT) by Rogers (1962) is adapted to information systems innovations by Moore & Benbasat (1991). Five attributes from Rogers' model and two additional constructs are identified.

Encouragement by Others' Use Support Self-Efficacy Performance Outcome Expectations Personal Outcome Expectations Affect Anxiety	Social Cognitive Theory (SCT) by Bandura (1986) is applied to information systems by Compeau & Higgins (1995) to determine the usage.
Performance Expectancy Effort Expectancy Attitude toward Using Technology Social Influence Facilitating Conditions Self-Efficacy Anxiety	Unified Theory of Acceptance and Use of Technology Model (UTAUT) by Venkatesh, Morris, Davis& Davis. (2003) integrates above theories and models to measure user intention and usage on technology

Source: Sundaravej (2005)

2.1.6.1 Theory Of Reasoned Action (TRA):

This theory was developed by Martin Fishbein and Azjen in 1975 derived from previous researches that started as the theory of attitude, which led to study of attitude and behavior.

Miller (2005) defines each of the three important components in this model as follows:

Attitudes : the sum of beliefs about a particular behavior weighted by evaluations of these beliefs.

Subjective Norms: the influence of people in one's social environment on his/her behavior intentions; the belief of people, weighted by the importance one attributes to each of their opinions that will influence one's behavioral intention.

Behavioral Intention: a function of both attitudes toward a behavior and subjective norms toward that behavior, which has been identified to predict the actual behavior.

The conceptual model of this theory which classified in figure (2) explains that the intention is determined by attitude toward behavior and subjective norm. Within the framework of sharing knowledge, intention to share knowledge of a person behaves is determined by one's attitude towards knowledge sharing behavior and subjective norms for knowledge sharing (Rahab & Wahyuni , 2013).

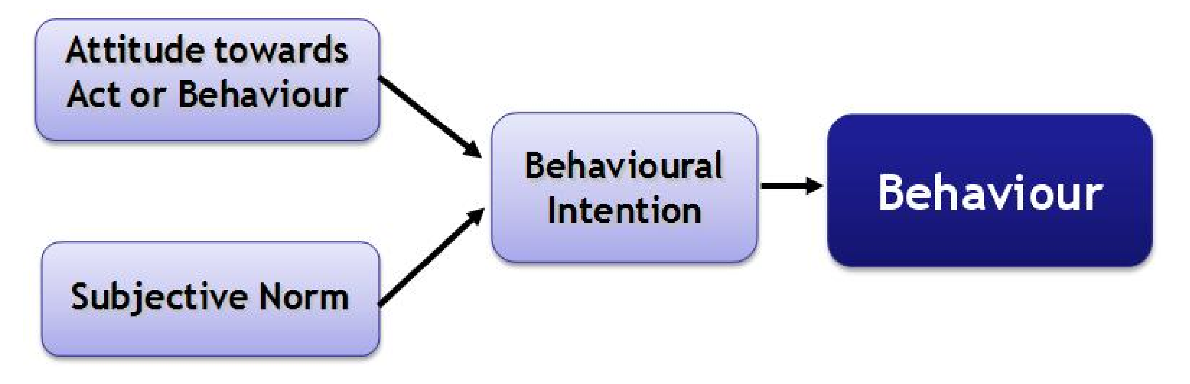


Figure (2)
The theoretical framework of TRA
Source : (Fishbein & Azjen ,1975)

It is expected that individuals with respect knowledge may demonstrate more knowledge sharing behavior if they hold positive attitude toward knowledge sharing. Therefore, it is meaningful to identify the factors that are influential to individuals' intention toward knowledge sharing behaviors.

2.1.6.2 Technology Acceptance Model (TAM)

This model was introduced by Fred Davis & Richard Bagozzi in 1986 and is specifically made as an adoption of the Theory of Reasoned Action (TRA) to explain behavior related to Information System usage, this model replaces many of TRA's attitude measures with the two technology acceptance measures – ease of use and usefulness ,These two important components had been described by Davis (1989)Shown in figure (3) :

Perceived Usefulness : This component is defined as the degree to which a person believes that using a particular system would enhance their job performance within the organization.

Perceived Ease of Use : This component can be defined as the amount of effort the person expects to need for using a particular system.

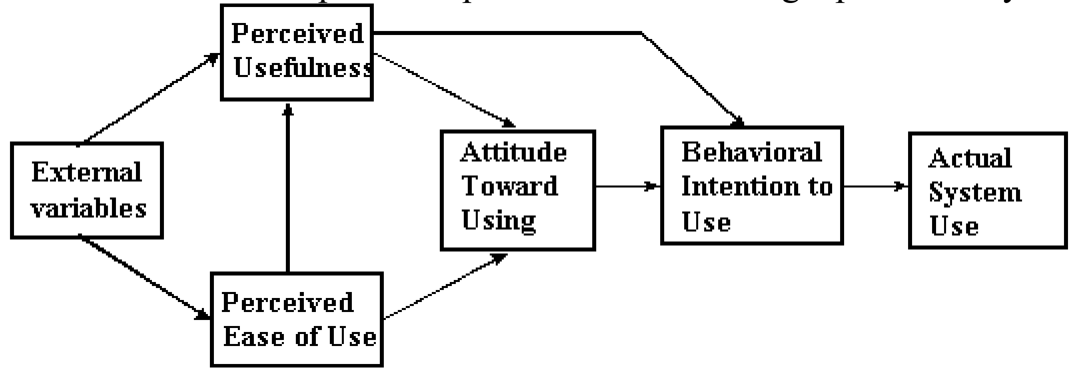


Figure (3)
The theoretical framework of TAM
Source : (Davis & Bagozzi , 1986)

Based on this theory, individual's intention to share knowledge depends on the extent to his /her belief that sharing knowledge electronically will functionally benefit him and reduce the effort to perform his / her job

Many researchers suggested that TAM needed to be given additional variables to provide an even stronger model. Venkatesh & Davis(1991) proposed an extension, TAM2, which included social influence processes (subjective norm, voluntarism, and image) and cognitive instrumental processes (job relevance, output quality, result demonstrability), but it omitted ATU due to weak predictors of either BI or AU (Wu & Wang, 2005).

2.1.6.3 Theory Of Planned Behavior (TPB)

As an extension of TRA (Ajzen & Fishbein, 1980), the theory of planned behavior (TPB) was proposed by Ajzen in 1991 and has been used by researchers over the past thirty years to be able to predict a variety of intentions and behaviors. According to this theory a user's behavior is determined by behavioral intentions, which in turn are influenced by an attitude towards the behavior and subjective norms. In addition to attitude towards the behavior and the subjective norm in the theory of planned behavior, perceived behavioral control can impact intention, likewise. Perceived behavioral control impact the users' decision through intention (Nykänen , 2013)

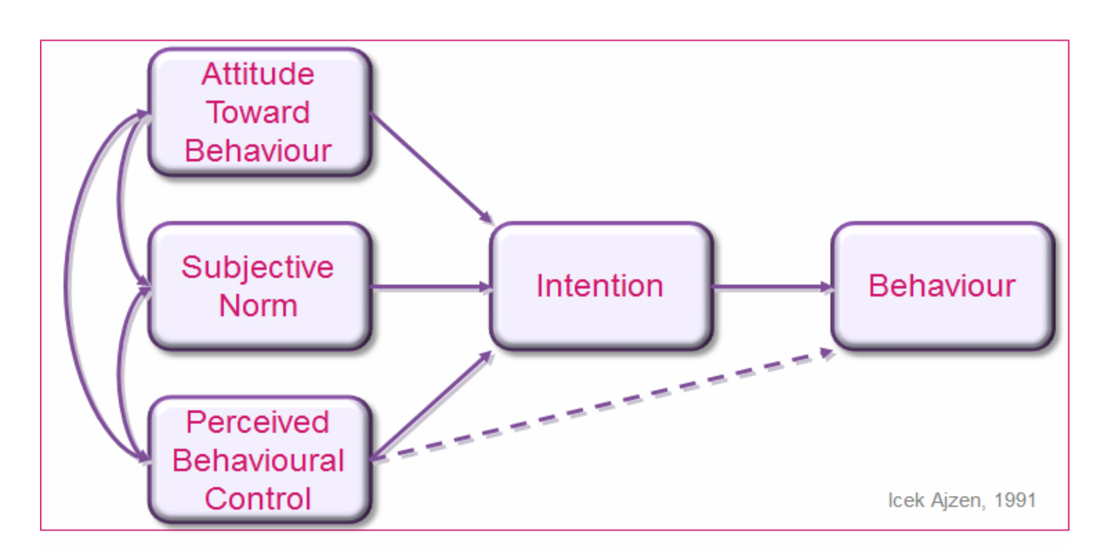


Figure (4)
The theoretical framework of TPB
Source : (Ajzen , 1991)

Figure (4) shows that behavioral intention is the most influential factor of behavior. Behavioral intentions are factors that describe how hard people are willing to try to perform a behavior (Azjen, 1991).

Based on TPB (Azjen, 1991), Chen et al. (2009) proposed that attitude toward online knowledge sharing, subjective norm, individuals' knowledge sharing self-efficacy, and social network ties jointly determine individuals' knowledge sharing intention which, in conjunction with individuals' knowledge creation self-efficacy and individuals' web-specific self-efficacy determines knowledge sharing behavior .

2.1.6.4 Unified Theory of Acceptance and Use of Technology

UTAUT is a comprehensive model proposed by (Venkatesh, Morris & Davis,2003) in relation to technology acceptance, generated by integrating several models.

In their experiment, data was gathered from two organizations to validate UTAUT and to increase validity of the preliminary test on the model. It appeared that performance expectancy, effort expectancy, and social influence affect the behavioral intention, while facilitating conditions, attitude toward using technology, self-efficacy, and anxiety do not influence the behavioral intention.

UTAUT was able to account for 70% of the technology acceptance behavior, whereas the original eight models explained between 17% and 53% of behavioral intention to use. Thus, UTAUT is a classic model providing a foundation to guide future research in the Information Systems area (Dekar, Mohammed & Jeremy,2011). Its theoretical framework is shown in Figure (5).

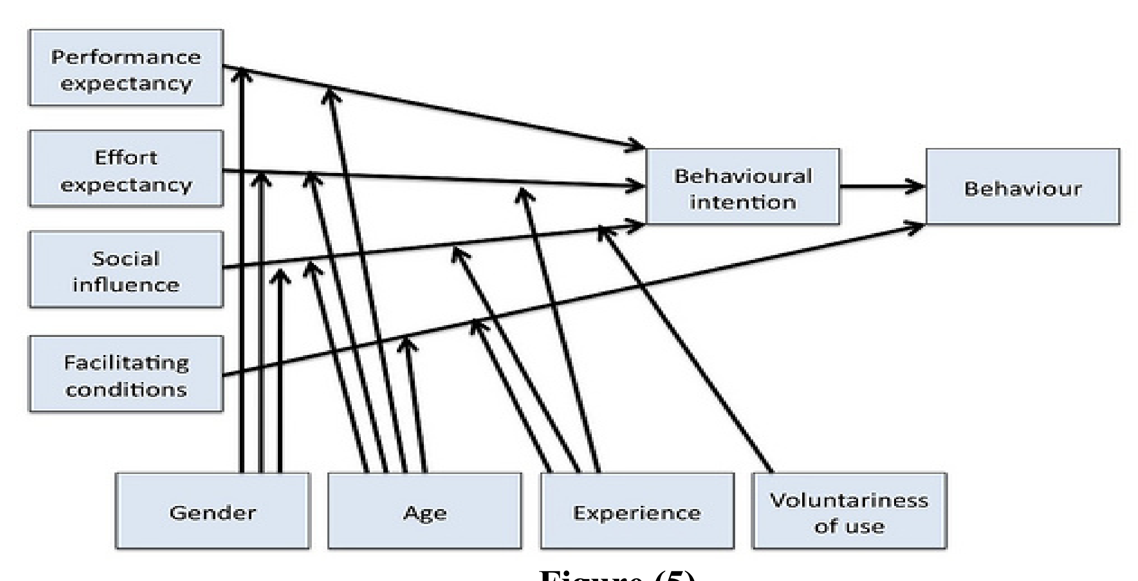


Figure (5)
The Theoretical Framework Of UTAUT
Source : (Venkatesh, Morris &Davis,2003)

As shown in figure (5) this theory has four core determinants summarized in Table (3) and classified as follows :

A. Performance expectancy: Venkatesh et al.(2003) had coordinated five dimensions from previous research, which are Perceived usefulness (Technology acceptance model), external motivation (Motivational model), work correlation (Model of Personal Computer utilization), relative advantage (Innovation diffusion theory) and expectancy to the achievement (Social cognitive theory). From these dimensions, it suggested that this variable refers as the ability to obtain considerable rewarding after sharing knowledge.

B. Effort expectancy : This component refers to the easiness that an individual thinks of when using the system (Venkatesh & Davis 1996). Vankatesh et al.(2003) has specified three sub-dimensions from the previous researches, which are ease of use (Technology acceptance model), systematic complexity (Model of Personal Computer utilization) and operating simplicity (Innovation diffusion theory). Vankatesh et al. (2003) indicated that whether the design of the system can allow user to use it easily or not is one of the main success factors of accepting the technology.

C. Social influence : This variable refers to the degree that an individual sense that the person who is important to him thinks that he should use the new system (Venkatesh & Davis, 1996). From this component, Venkatesh et al. (2003) has categorized three sub-dimensions from the previous scholar as follows:

1. **Subjective Norm** (Theory of reasoned action, Technology acceptance model and Theory of planned behavior): This attribute refers to a certain kind of image of the party that is given by people around him or people think that how the party should do (Venkatesh & Davis 1996). This was relevant to produce the point of behavioral intention that was first proposed by Theory of Reasoned Action. Davis (1989) indicated that the strong or weak strength of this element is closely related to the environment that the discussion subject is in.
2. **Public Image (Innovation diffusion theory) :** This element refers to the party thinks a certain image helps to maintain or improve his position in the group (Venkatesh & Davis, 1996). Vankatesh et al. (2003) suggested that because the image the party hopes to establish is usually related to role model that had been identified.
3. **Social Factor (Model of Personal Computer utilization) :** Vankatesh et al. (2003) believes that this attribute has the relationship with use intention and influenced by the interfering variables such as gender, age, experience and use voluntarily. For instance, social factor has very significant influence towards

senior staff in sharing knowledge due to recognition or motivational factors that influences the positive culture in the organization.

D. Facilitating conditions : This variable can be described as the degree of supporting that an individual received from the organizational and technical relevant equipment toward system use such as training, manual, hand-on and others (Venkatesh and Davis 1996). Vankatesh et al.(2003) had categorized three sub-dimensions from the previous models:

1) **Control of conscious behavior:** (Technology acceptance model and Theory of planned behavior) This elements refers to user's self-efficacy to the system in general which determine the ability of user to operate and utilize the system
2) **Promoting condition** (Model of Personal Computer utilization) : This attribute refers to the technology assistance that is provided by the environment .
3) **Compatibility** (Innovation diffusion theory) : This element is referred to as the consistency of system and organization value

Table (2)
The Core Determinant Of UTAUT

UTAUT Determinant	Sub-Determinant	Source Of Integrated Model
Performance Expectancy	Perceived Usefulness	TAM/TAM2/C-TAM-TPB
	Extrinsic Motivation	MM
	Job-Fit	MPCU
	Relative Advantages	IDT
	Outcome Expectancy	SCT
Effort Expectancy	Perceived Ease Of Use	TAM/TAM2
	Complexity	MPCU
	Ease Of Use	IDT
Social Influence	Subjective Norms	TRA/TAM2/TPB/DPTB
	Social Factors	MPCU
	Image	IDT
Facilitating Conditions	Perceived Behavioral Control	TPB/DTPB,C-TAM-TPB
	Facilitating Conditions	MPCU
	Compatibility	IDT

Source: (Venkatesh et al., 2003)

Other factors such as gender, age, experience and voluntariness of use are posited to mediate the impact of the four key variables on usage intention and behavior. Venkatesh et al. (2003) suggested that the purpose of these mediating variables is to emphasize that there is difference

between personal acceptance and strategy of using the system under different environment and situation.

2.2 Previous Studies and Hypotheses Development

This section discusses the results of studies conducted to investigate the relationship between main and sub-constructs of concern, and how these studies reached these results. Building on the discussion of previous studies, the researcher will develop and present the research hypotheses.

2.2.1 Performance expectancy and Behavioral intention

UTAUT is an integrated combination of previous models, where five factors from previous models formed performance expectancy variable consisting of perceived usefulness ,external motivation ,job fit,relative advantages and outcome expectations (Venkatesh &Davis ,2000) .

Indeed, from a potential knowledge sharer perspective, the perceived usefulness of knowledge sharing should increase to the extent that the various contacts have shared the knowledge and communicated their reasoning (Brockman & Morgan, 2003; Kankanhalli et al., 2005) .

Yu (2012) conducted a study to enrich current knowledge about what affects individuals to use mobile banking is required. Consequently, this study employs the Unified Theory of Acceptance and Use of Technology (UTAUT) to investigate what impacts people to adopt mobile banking, and conclude that individual intention to adopt mobile banking was significantly influenced by, performance expectancy as the first constructer, social influence, perceived financial cost, and perceived credibility, in their order of influencing strength. The behavior was considerably affected by individual intention and facilitating conditions .

With reference to studies that dealt with the term "performance expectancy" without subdivisions, Taiwo and Downe (2013) investigated the the effect of Performance Expectancy on Behavioral intention under the study of the theory of user acceptance and use of technology (UTAUT), based on 37 selected empirical studies, The outcome of the study suggests that only the relationship between performance expectancy and behavioral intention is strong, while the relationships between effort expectation, social influence and behavioral intention are weak.

The previous mentioned result was supported by Tan (2013), He stressed that when students believe that e-placement tests:1) will lead to academic gains, 2) are easy to use, and 3) are important to their peers or society, intention to use of these tests will increase .

Abu Bakar, Abdul Razak & Abdullah (2013) ,propose an integrated research framework to investigate the factors that can motivate

students to continue to utilize UCSP (University College Shah Putra) student portal system. Two streams of research provide the basis for this integrated framework namely Unified theory of acceptance and use of technology (UTAUT) and Self-Determination theory, Results revealed that the performance expectancy and intrinsic motivation do not have any statistically significant effect on continuance intention to use UCSA student portal .

This research suggested that this variable refers as the ability to get significant rewards after Sharing knowledge with coworkers in the same organization based on (Vankatesh et al. 2003). Therefore, users of online KS means of a virtual community can be motivated to participate by using methods such as tangible returns (promotion, raises or bonuses), intangible returns (reputation, self-esteem) and community interest (exchange of practice related knowledge, interaction). This is what researcher seeks to verify; by assuming the following hypothesis without neglecting the results obtained Abu Bakar et. al (2013).

H1: Performance expectancy has a significant effect on users' intention to use online sharing knowledge .

2.2.2 Effort expectancy and Behavioral intention

This variable captures the ideas of ease of use ,which refer to the “degree to which a person believes that using a particular system would be free from effort"(Davis, 1989) as a significant predictor of behavioral intention for initial technology use in the UTAUT model. Chau and Hu (2002) report limited effects of Perceived ease of use for physicians and believe this may be due to the strong IT support they typically have access to, as well as the higher-than-average learning ability of this type of professional , both Pennington, Mahoney, Kuwahara, Kolber, Calienes, and Chavez (2006) and Bedard et al. (2003) found ease of use as strong influencer of user intentions in accounting settings

In the term of educational technology Sundaravej (2005) presents findings of a study that validates the UTAUT model in the subject of the user acceptance towards an educational technology usage , a total of 262 respondents from a business administration undergraduate level course at a Midwestern university were surveyed for their acceptance of Blackboard, an educational Web-based software system, It appeared that effort expectancy was the strongest construct that affect students intention towards an educational technology usage.

On the other hand, unlike the previous Findings Effort expectancy did not influence the intention behavior; That is the result obtained by Wu, Tao and Yang (2007). On the counterpart of managerial implications of that study, effort expectancy may be a necessary condition, but not the sufficient criterion to lift consumers’ intention to adopt. This is an

unusual exception to general technology acceptance situations and thus is worthy of the attention of the online Training centers companies.

Also Bouten (2008) investigate the effect of compatibility beliefs through performance expectancy and effort expectancy on behavioral intention, As suggested by Venkatesh et al. (2003) this study tried to extend the generalizability of their findings by analyzing a specific part of their UTAUT model in a different organizational context and with a different technology used. Furthermore, compatibility beliefs were introduced as new antecedent for performance and effort expectancy, as suggested by Venkatesh et al. (2003).

This consensus the results obtained by Mariaka and Oboko (2009) during the study of Understanding Intention to Use Computer Assisted Audit Tools and Techniques (CAATTs) Using UTAUT Model .The research has proven the above claim that effort expectancy is significantly and positively related to intention to use CAATTs. This implies that auditors who perceived highly on the ease of use of CAATTs would have high intention to use CAATTs.

McCombs (2011) surveyed 251 private school teachers in Florida who completed an on-line survey instrument based upon the UTAUT model, The intention was to examine the factors that affect secondary teachers in the implementation of curriculum activities that require student use of technology. The relationships between the identified factors were determined through the development of a path model using partial least squares analysis. The constructs having the strongest relationship with Behavioral Intention, and hence, having a stronger effect were and Effort Expectancy.

Kasim, Yaacob and Malik (2013) mentioned that People nowadays are utilizing virtual modes and web-based technologies such as Internet, Intranet, social media and other latest online applications to interact and socialize. This is where knowledge can be extracted, shared and distributed around the globe. On that note, many scholars have recognized the virtual environment as an effective platform for knowledge sharing and collaboration. The experts have suggested virtual communities as cyberspace communities having various internet-based chat and collaboration that include discussion forums, chatting space, discussion or online bulletin board, wikis, blog and other online platforms, therefore , they attempted to concentrate on investigating the critical success factors in developing a new feature for KM platform, namely Virtual technology to implement the knowledge sharing and collaboration culture in the research organizations , and suggested five important predictors or key success factors for promoting knowledge sharing and collaboration and rising user intention to accept the new technology as order of – effort expectancy, performance expectancy,

social influence, facilitating condition and attitude towards knowledge sharing.

This research suggested that whether the design of Knowledge sharing media such as Virtual social media can allow user to navigate it easily or not, is one of the key success factors of accepting the technology. Therefore, consistent with prior tests of the TAM and UTAUT models, but contrary to Yu el at. (2010) study, we expect Effort Expectancy significantly affect intention to use online KS.

H2 : Effort Expectancy has a significant impact on users' intention to use online sharing knowledge .

2.2.3 Social Influence and Behavioral Intentions

Previous researches have pointed out that the social context is crucial for work group success (Gupta & Govindarajan, 2001). In the context of Knowledge Sharing Communities, these scholars argue that five context variables are of major importance – subjective Norms, management support, knowledge culture, knowledge supply, and knowledge type.

Social influences play a dominant role in the technology acceptance field. Constructs directly related to social influences have been used in many technology acceptance studies. In their introductory study about beliefs, attitudes and behavior, Fishbein and Azjen (1975) labeled social influences as 'subjective norm'. They defined it as; the person's perception that most people who are important to him think he should or should not perform the behavior in question (Nanayakkara, 2007) .

In there research Ma, Clark and Li (2006) investigated the factors affecting Internet users are so eager to post their own diary on the web every day and to analyze differences among various user types ,by implementing UTAUT model social influence lead to be the weakest predictor of behavioral intention, while all the others direct effect hypotheses were supported, that's mean all the tested factors have positive impact on intention to us, facilitating condition is the strongest

There are another studies produced results consistent to its predecessors in terms of societal influence, Mariaka and Oboko (2009) found that Social influence has been found insignificant in voluntary situations but significant when use is mandated, also Mccombs (2011) indicated that Social Influences had the smallest influence on a teacher's Behavioral Intention to use technology in the classroom .

Tanakinjal et al.(2012) applied the same moderated UTAUT model to explore the relationship between performance expectancy, effort expectancy and social influence towards behavioral intention and self-disclosure intention towards Web 2.0 among university students . The

interesting results indicated that there is a significant effect of social influence on behavioral intention and 46.5% of the total variances in behavioral was explained by social .

However, recently , social influence was found to have no direct effect on behavioral intention, as well as no directly significant effect on total use of healthcare technology behavior (Phichitchaisopa1 & Naenna, 2013), In order to improve the quality and performance of healthcare services, healthcare information technology is among the most important technology in healthcare supply chain management; Phichitchaisopa1 and Naenna (2013) study sets out to apply and test the Unified Theory of Acceptance and Use of Technology (UTAUT), to examine the factors influencing healthcare Information Technology (IT) services. Data collected from 400 employees including physicians, nurses, and hospital staff members were tested the model using structural equation modeling technique . The results indicated that the technology acceptance of users with regards to social influence which is a minimum construct, had an insignificant influence on behavioral intention.

In the present research in term of online KS the researcher supposed that most people who experience the need to write personal experiences would not feel the need to publish on the web. It was a fundamental social need that triggered Internet users to publish their knowledge. If an Internet user perceived that the people who were most important to him or her thought he or she should share his ideas publicly, that user would most probably consider doing it. Thus the sense of community made individuals want to follow the group, nor this perception and with the support of the previous hypotheses - mixed results - will be tested by the following hypothesis :

H3 : Social influence has a significant effect on users' intention to use online sharing knowledge

2.2.4 Facilitating Conditions and online Knowledge Sharing

Facilitating conditions “are defined as the degree to which an individual believes that an organizational and technical infrastructure exists to support use of the system” (Venkatesh et al., 2003). Mathieson, Peacock & Chin (2001) developed an extension to TAM by including a construct called the Perceived Resources available. These included hardware, software, knowledge, time, data, finance, support and documentation.

Facilitating conditions (FC) represents organizational and technical support and is typically significant in both voluntary and mandatory settings in the initial usage period, but its influence on usage intentions disappears after this, As describe by Gannon-Leary, Pat and Fontainha (2007), the participants must have access to a basic Information

Technology (IT) skills to become efficient in technology and usability of this Virtual platform.

In studies in the MIS domain, where adoption relates merely to the use of the software and does not entail the difficulties of its implementing, FC is non-significant in predicting intention (Venkatesh et al. 2003).

In the term of educational technology Sundaravej (2005) presents findings of a study that validates the UTAUT model in the subject of the user acceptance towards an educational technology usage. It appeared that performance expectancy, effort expectancy, and social influence affect the behavioral intention, while facilitating conditions, attitude toward using technology, self-efficacy, and anxiety do not influence the behavioral intention, but have strong influence on the actual usage of technology, The findings are found to be similar to the results of UTAUT empirical validation by Venkatesh et al. (2003).

Dekar, Mohammed and Jeremy (2011) explores what pushes consumers to use Indonesian airline e-Services. Specifically, the study investigates how the ‘motivation’ factor can be combined in some traditional theoretical models, within which it studies the influence on intention of the customers to use e-Services as well as its usage. The research model is validated by surveying 819 Indonesian consumers who have used Indonesian Airline e-Services. The results confirm behavioral intention to use is influenced by the effort expectancy, social influence, outcome expectancy, and motivation. The motivation itself is influenced by the effort expectancy, social influence, trustworthiness, and outcome expectancy. Findings indicate that the actual usage strongly influenced by facilitation conditions.

In a study on E-Banking Services in Iran ,Ghalandari (2012) investigated the effects of performance expectancy, effort expectancy, social influence and facilitating conditions on acceptance of e-banking services in Iran by considering the role of age and gender. Totally, 350 customers of Bank Melli were used for the final analysis, which the results show that all four variables had a positive and significant effect on users' behavior and intention to use e-banking services and variables of age and gender moderated the relationships between these variables. Therefore, in order to achieve effective acceptance of e-banking services, extensive, attractive and insightful activities should be done to raise users' awareness of these advantages and e-banking services should be designed in a way that users face no problems while using it .

In our context, it is reasonable to assume that support from technical people and training on using social media, e-mail ,weblogs to share knowledge and expertise will be more important in this context than in the more classic methods of exchanging information. Therefore,

we expect Facilitating conditions to significantly affect the actual usage of online KS.

Findings of previous research - though mixed- seems to be more agent dominant, and this dominancy is more toward positively affection between Facilitating Conditions and usage behavior ,accordingly the fourth hypotheses is as follows:

H4: Facilitating conditions positively affect actual use behavior of online KS.

2.2.5 Behavioral Intentions and online Knowledge Sharing Usage behavior

In past years, customer behavior has become an important issue in Internet research. BI is behavior-specific and operationalized by direct questions such as "I intend to behave , to measure relative strength of intention. and is distinct from similar concepts such as desire and self-prediction (Armitage & Conner, 2001). Ajzen (1991) argued that BI reflects how hard a person is willing to try, and how motivated he or she is, to perform the behavior .

The term usage behavior Introduced by Davis (1989), users may dislike an IT application nevertheless still use it, since it is believed to enhance the users' output. In former research beliefs have been related more often directly to use behavior (Wu & Wang, 2005). Venkatesh et al. (2003) focus on the direct relationship between behavioral intention and usage behavior .The direct influence of behavior intention on use behavior has been consistently present in preliminary tests and cross-validation during the development of the UTAUT model .According to the theory of planned behavior (Ajzen, 1991), behavioral intentions are motivational factors that capture how hard people are willing to try to perform a behavior. TPB suggests that behavioral intention is the most influential predictor of behavior (Pavlou & Fygenson, 2006).

previous literature has correlated the relationship between the two variables. For example, in a meta-analysis of 87 studies, an average correlation of .53 was reported between intentions and behavior Results of Pavlou and Fygenson's (2006) longitudinal study validated the predictive power of TPB in online behavior and showed strong associations between get-information intention and get-information behavior, and between purchase intention and purchase behavior.

Al Mursalin (2012) study explored 255 Bangladeshi SMEs to conceptualize current trend of Information system usage and validates four constructs of unified theory of acceptance and use of technology (UTAUT) model to explain IS adoption behavior. The outcome of the study shows that, though a number of Bangladeshi SME's are exposed to computer based IS, their usage, in most cases, are limited to operational

level of activities. SMEs are also less concerned about the further development of IS and allocated a minimum budget for IS development. It is also found that the adoption and usage of IS by the Bangladeshi SMEs are strongly influenced by the SME's Intention to use it , Based on the above, the following hypothesis will be tested .

H5: Knowledge sharing intention positively influences online KS usage behavior

2.4. Research Model

All previous studies that have been conducted and scheduled, motivated the researchers to use UTAUT as the theoretical model of present research. According to the above-mentioned establishment of UTAUT–based framework, "performance expectancy", "effort expectancy", "social influence", and "facilitating conditions" are the independent variables or exogenous variables, whereas "behavioral intention" and "use behavior" are the dependent variables or endogenous variables, and the "behavioral intention" is also the intermediary variable. Of course, with respect to the fact that using sharing knowledge is completely optional and also present research was a cross-sectional one, moderating variables of free choice and experience were not considered in present research. Also Gender and Age lead to be insignificant in terms of moderating the behavioral intention to technology acceptance (Mariaka & Oboko,2009; Alfonso el at., 2012; Mardikyan el at., 2012) .

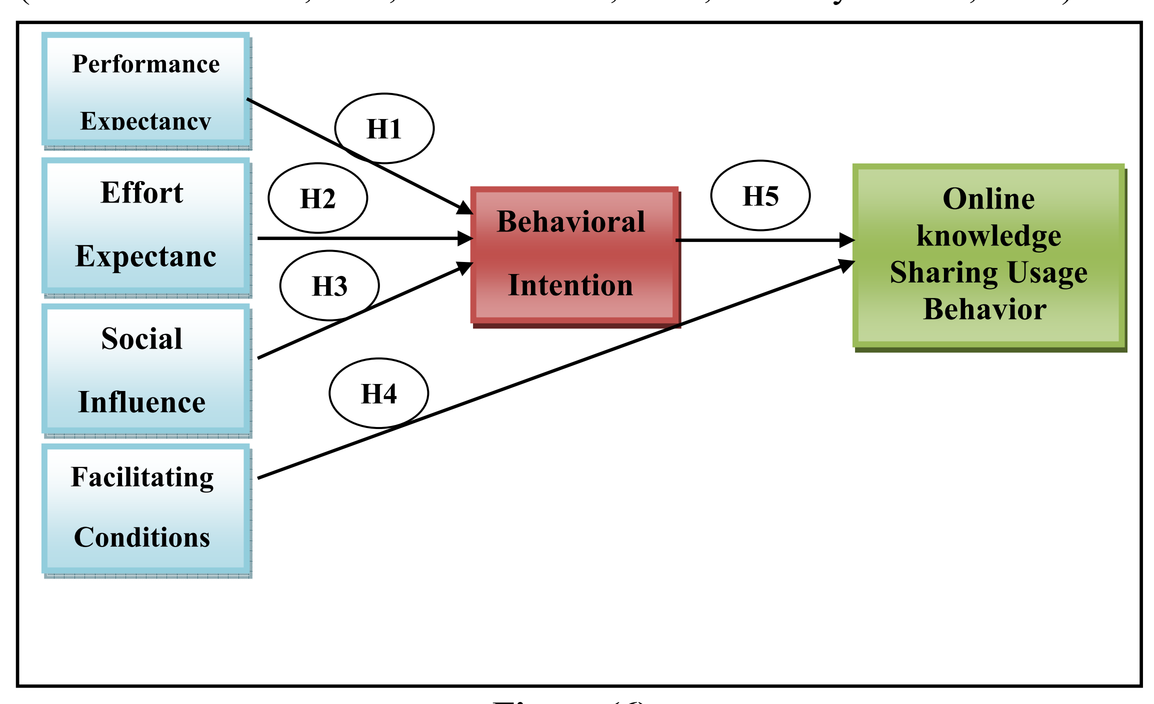


Figure (6)
The Study Model
Source: Modified by the researcher building upon relevant literature.

CHAPTER THREE
Research Methodology

In previous chapters, the guideline of the research and its supporting literature has been discussed. In this chapter the research methodology used in the study is discussed including the selected of methodology approaches that were adopted, data collection, research population and sample selection and instrument used to collect the data. Moreover, methods implemented to maintain validity and reliability of the instrument are described. data collection and analysis tools are highlighted.

3.1 Research Purpose

The purpose of the research is a statement of what is to be accomplished by conducting research and how the results of the research can be used. According to their purpose, researches can be categorized into different types, where the nature of the problem affects whether the research is exploratory, descriptive or explanatory (Zikmund, 2000; Yin, 1994).The purpose of this research is to find out the main determinants of online KS usage Behavior , then evaluate and validate the model in the knowledge training centers in MENA region. All determinants of online KS usage behavior in the studied model have been considered in literature and previous theories. Based on this description, this research centers on a problem that is well structured and clearly understood (Cavana, Delahaye & Sekaran, 2001; Ghauri & Gronhaug, 2005). Therefore, the research is of a descriptive nature, also this research has hypothesis testing explanatory purpose, testing the effection of UTAUT factors on the intention and actual usage of knowledge sharing .

3.2 Research Design (Approach)

A research design is defined as a detailed plan of how a research study is to be conducted (Neuman,1997). Research Design includes both a theoretical and methodological approach.

This research started with a literature review and developed questions from already existing theories, which later are compared with the reality and the main idea is drawn form already existing theories within the research area (Yin, 1994); therefore, this research is of deductive nature. In this research, a lot of data has been collected by using online questionnaire. All of this data was numerical and as a result the methodological research approach in this research is quantitative in nature.

3.3 Population and Sampling Design

3.3.1 Population

The targeted population of this research consists of knowledge training centers in MENA region under the umbrella of Telecentre Foundation,The network has more than 1.800 members, who are individual telecentre leaders from around the Arab speaking MENA region (HTTP1)

3.3.2 Sample Selection

This research was undertaken via the method of a questionnaire that focused on each of the construct as described in the previous section. Since the source of these people is unavailable in the public domain, convenient sampling, one of the non-probability methods, has been adopted to reach the subjects. It has been suggested that a range of a minimum sample size of 30 and a maximum of 500 is acceptable (Sekaran, 2000). The sample was selected from four telecentre institutions distributed in four Arab countries which are: Knowledge Stations Program in Jordan, Knowledge Access centers in Syria, ICT-trust Fund in Egypt and Oman Digital Organization as shown in table (3)

Table (3)
Selected Sample

Institution name	Country	Number of Total Training Centers	Number of responses
Knowledge Stations Program	Jordan	192	190
Knowledge Access Centers	Syria	52	19
Oman Digital Organization	Oman	50	43
ICT- trust Fund	Egypt	140	44
Total		**434**	**296**

The researcher first distributed an electronic survey questionnaire created via Google Docs to 434 training center by Email, with a cover letter that explained the purpose of this research present. The researcher followed up, personally, the questionnaires with sample's members. The returned questionnaires were carefully examined for completeness. A total of 305 questionnaires were received, 9 questionnaires removed due to incomplete information. Thus, the researcher obtained back 296 usable responses which resulting in an 97.04 % response rate, This sample were selected for the following reason :

The four selected institutions ranked as the most advanced in MENA region within the sixth annual report that issued by Telecentr Foundation, the accession of those four training institutions into Telecentre organization was taken in order to exchange experiences and knowledge to eventually lead to the overall development of the work, hope this and similar studies will contribute to the improvement .

3.4 Data Collection method and Instrument

3.4.1 Data Collection:

The researcher searched the relevant literatures and articles available in the library and different databases. Too many articles were found, but the researcher tried to sort out those that were directly related to the thesis topic. After reading carefully through these articles, the researcher found some of them quite interesting and worthwhile in order to get help for developing the idea of this thesis. In the first phase of data collection, the researcher used secondary data for building up the research model and questionnaire. In the second phase of the data collection, primary data was applied to the research investigation.

3.4.2 Questionnaire structure:

Based on relevant literature, the researcher designed a questionnaire consist of three parts to gather data and to test the developed hypothesis.

The first part was about individual characteristics with four questions by asking respondents' gender, name of the institution to which they belong, age and experience.

The second part contains all five constructs in the research model with the total of 18 statements, the last part measures the actual usage of online KS, Several items on each construct were developed and adopted from relevant literatures shown in Table (4).

Table (4)
Construct Measurement

Construct	No. of Items	Source of Items
Performance Expectancy	4	Tan,2013; Phichitchaisopa& Naenna,2013; Yu,2012; Ghalandari,2012
Effort Expectancy	4	Tan,2013; Phichitchaisopa& Naenna,2013; Yu,2012; Ghalandari,2012
Social influence	4	Tan,2013; Phichitchaisopa& Naenna,2013; Yu,2012; Tanakinjal et al.,2012; Ghalandari,2012.
Facilitating Conditions	3	Tan,2013; Phichitchaisopa& Naenna,2013; Yu,2012; Ghalandari,2012.
Behavioral Intention	3	Tan,2013; Phichitchaisopa & Naenna,2013; Yu,2012;Tanakinjal et al.,2012; Ghalandari,2012; Yuen & Ma,2004; Chen et al.,2009;
Usage Behavioral	8	Tan,2013; Ghalandari,2012; Chen et.al.,2009; Yuen & Ma,2004.

A five-point rating scale typically gives sufficient discrimination and is easily understood by survey participants. This is usually recommended for most survey settings (Brace 2004). All of the items were measured by using a five-point Likert scale ranging from : Strongly Agree (anchored by point 5) to Strongly Disagree (anchored by point 1).

3.5 Variables measurement: Operational Definitions

Before a scale of measurement is developed, the researcher must determine exactly what it is to be measured (Hair, Anderson, Tatham & Black, 1998). Concepts or variables in this research were not directly observable, so they have to be operationalized in a way that enables the researcher to measure them. Operational definitions of variables measured in this research were borrowed and slightly modified from previous studies. These definitions are presented in Table (5).

Table (5)
Operational Definitions

Variables	Operational definition	Items
Performance Expectancy	The degrees to which an individual believes that online KS will help him or her attain gains in job performance	1-4
Effort Expectancy	The degree of ease associated with the use of online KS technologies .	5-8
Social influence	The degree to which an individual perceives that important others believe that he or she should use online KS technologies .	9-12
Facilitating Conditions	The degree to which an individual believes that an organization and technical infrastructure exist to support online KS usage.	13-15
Behavioral Intention	how hard individuals are willing to try online KS technologies .	16-18
Usage Behavioral	Individuals' actual Usage behavior of online KS technologies .	19-22

3.6 Analyses Tools

Data was collected and analyzed by using SPSS version 16.0 for purposes of descriptive statistics and explanatory factor analysis , while Partial Least Square (PLS), Using AMOS 16.0 was utilized to determine the interactions among the various constructs of structured equation model (SEM) . Inter-item consistency reliability was conducted for the consistency of respondents' answers to the items in ameasure in this research questionnaire .

In order to investigate the direct effect of Performance Expectancy, Effort Expectancy, and Social influence on Behavioral Intention, and the direct effect of Facilitating Conditions on online KS Usage Behavior, and the indirect influence of Performance Expectancy, Effort Expectancy, and Social influence on online KS Usage Behavior through Behavioral Intention, the collected data were analyzed using SEM method .

3.7 Instrument Validation and Reliability

Saunders, Lewis and Thornhill (2007) contribute that to reduce errors and receive wrong answers, attention has to be emphasized on two particular research devises; Reliability and Validity. The validity describes how well the collected data covers the actual area of investigation (Lekvall & Wahlbin, 1993). Zikmund (2000) claims that

validity is the ability to measure what is intended to be measured. Reliability on the other hand is the degree to which evaluated data is free from arbitrary errors.

Several tests were performed on the measurement models to examine its validity and reliability. First, the composite reliability for the internal consistency was demonstrated since values for all constructs were above the suggested threshold of 0.70, the lowest value of composite reliability was 0.9345, larger than the recommended value of 0.7, showing good reliability. Convergent validity can be assessed by examining average variance extracted (AVE) from the measures. For AVE, a score of 0.5 indicates acceptability (Fornell and Larcker 1981). From Table (6), we can see the AVE ranges from 0.7820 to 0.8914, which shows convergent validity. Also the Cronbach's alpha for all constructs are above 0.70 (Nunnally, 1978) which implies a high reliability of the measures.

Table (6)
Composite Reliability and AVE for Internal Consistency

Constructs	AVE	CR	R Square	Cronbachs Alpha
Performance Expectancy	0.8317	0.9518		0.9325
Effort Expectancy	0.7820	0.9348		0.9070
Social Influence	0.8357	0.9531		0.9345
Facilitating Conditions	0.8263	0.9345		0.8950
Behavioral Intention	0.8914	0.9610	0.8036	0.9391
Use Behavior	0.8680	0.9634	0.7276	0.9492

The standardized factor loadings for all items were above the suggested cut-off 0.60 (Hatcher, 1994) (Table 7), and all are significant, showing strong evidence of convergent validity. All items were significant at the 0.01 level with high loadings (all above 0.70 and most above 0.90, which were above the recommended value of 0.60), therefore demonstrating convergent validity.

Table (7)
Measurement Model Statistics

Constructs	Items	Loading	T-Statistic
Performance Expectancy (PE)	PE4	**0.9037**	**37.1714**
	PE3	**0.9119**	**51.4269**
	PE2	**0.9006**	**40.5922**
	PE1	**0.9314**	**69.4460**
Effort Expectancy (EE)	EE4	**0.8779**	**32.1548**
	EE3	**0.8841**	**34.4335**
	EE2	**0.9083**	**48.5766**
	EE1	**0.9023**	**45.5674**
Social Influence (SI)	SI4	**0.9077**	**42.7704**
	SI3	**0.9171**	**47.3626**
	SI2	**0.9235**	**56.9286**
	SI1	**0.9082**	**52.2539**
Facilitating Conditions (FC)	FC3	**0.9102**	**49.1372**
	FC2	**0.9065**	**36.4336**
	FC1	**0.9104**	**43.3194**
Behavioral Intention (BI)	BI1	**0.9488**	**64.7112**
	BI2	**0.9487**	**56.7391**
	BI3	**0.9348**	**67.4933**
Use Behavior (UB)	UB1	**0.9378**	**54.8696**
	UB2	**0.9501**	**87.6384**
	UB3	**0.9260**	**49.3391**
	UB4	**0.9121**	**44.8139**

Table (8) present the discriminated validity statistics. The square roots of the AVE scores (diagonal elements of Table 8) are all higher than the correlations among the constructs, demonstrating discriminant validity. Cross-loadings of constructs are provided in Table (9). All items loaded higher on their respective constructs than on others, providing additional support for discriminated validity.

Table (8)
Correlations and Average Variance Extracted (AVE) (Diagonal)

	BI	EE	FC	PE	SI	UB
BI	**0.891**					
EE	0.706	**0.782**				
FC	0.538	0.477	**0.826**			
PE	0.777	0.745	0.527	**0.832**		
SI	0.684	0.794	0.519	0.752	**0.836**	
UB	0.709	0.725	0.504	0.668	0.705	**0.868**

Table (9)
Cross-Factor Loadings

	BI	EE	FC	PE	SI	UB
BI1	**0.9488**	0.7881	0.6980	0.8279	0.7765	0.7960
BI2	**0.9487**	0.8066	0.704	0.8471	0.7888	0.7767
BI3	**0.9348**	0.7856	0.6749	0.8209	0.7780	0.8122
EE1	0.7709	**0.8779**	0.6830	0.7736	0.8146	0.7852
EE2	0.7206	**0.8841**	0.5674	0.7551	0.7915	0.7356
EE3	0.7769	**0.9083**	0.6315	0.7927	0.7907	0.7740
EE4	0.7779	**0.9090**	0.6487	0.7538	0.7804	0.7823
FC1	0.6956	0.6313	**0.9102**	0.6732	0.6583	0.6772
FC2	0.6382	0.6281	**0.9065**	0.6464	0.6368	0.6282
FC3	0.6637	0.6229	**0.9104**	0.6598	0.6686	0.6285
PE1	0.7993	0.7672	0.6987	**0.9037**	0.7828	0.7209
PE2	0.8003	0.7638	0.6352	**0.9119**	0.7836	0.7496
PE3	0.7746	0.7866	0.6425	**0.9006**	0.7599	0.7157
PE4	0.8385	0.8290	0.6722	**0.9314**	0.8344	0.7844
SI1	0.7808	0.8044	0.7265	0.8155	**0.9077**	0.7786
SI2	0.7657	0.7969	0.6765	0.7802	**0.9171**	0.7828
SI3	0.7389	0.8307	0.6192	0.7874	**0.9235**	0.7412
SI4	0.7378	0.8283	0.6062	0.7862	**0.9082**	0.7669
UB1	0.7834	0.7977	0.6704	0.7777	0.7829	**0.9378**
UB2	0.8021	0.8044	0.6742	0.7767	0.8001	**0.9501**
UB3	0.7500	0.7721	0.6309	0.7398	0.7559	**0.9260**
UB4	0.8002	0.7966	0.6686	0.7498	0.7891	**0.9121**

Chapter Four
Data Analysis and Research Findings

4.1. Introduction

This chapter displays the results of data analysis; it views the descriptive statistics for the demographic characteristics of participants and followed by the hypothesis testing. Each hypothesis is tested and analyzed individually.

4.2. Sample Description

The following table shows the sample distribution according to its demographic variables.

Table (10)
Sample Demographic Characteristics

Measure		Frequency	Percent
Gender	Male	136	45.9%
	Female	160	54.1%
Age	25 Or less	54	18.2%
	26 -35	206	69.6%
	36 – 45	34	11.5%
	46 Or Above	2	0.7%
Experience	Less than 1 year	13	4.4%
	2 – 5 years	143	48.3%
	6 – 10 years	98	33.1%
	More than 10 years	42	14.2%
Institution	KS (Jordan)	190	64.2%
	Access Centers (Syria)	19	6.4%
	E-Oman	43	14.5%
	ICT-Trsut Fund (Egypt)	44	14.9%
	Total	**296**	**100.0%**

By comparing the percentages of male and female respondents, it is clear that Female respondents were slightly higher.Regarding the age of respondents, the highest percentage (69.6 %) was in the age category of 26 to 35 years and the lowest percentage(0.7%) referred to the age category of more than (46) years , Therefore we can say that most of

Telecentres' managers in the Middle East and North Africa MENA region fall under the category of youth .

In reference to the Practical experience, about half of the respondents (48.3 %) have (2-5) years experience and the rest are divided among three groups : (6-10) years with (33.1%),More than 10 years with (14.2%) and less than 1 year with (4.4%).

It is clear from the above table that the highest percentage of respondents were from Jordanian knowledge stations (64.2 %) with more than half of the respondents,(14.9%) From Egyptian telecentres, Followed by Digital Oman (E-Oman) with a value slightly lower (14.5%) , the number of respondents from the Syrian access centers was so low that occupied (6.4 %) of the total percentage as shown in figure (7)

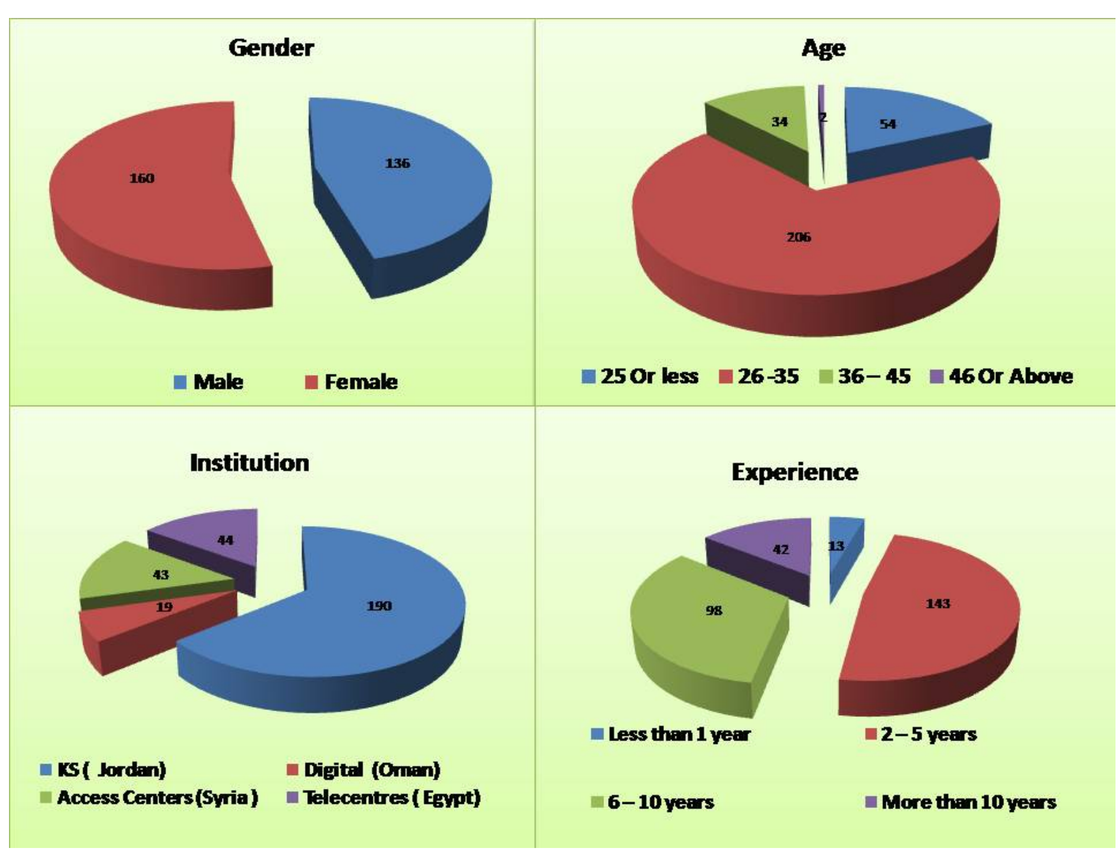


Figure (7)
Demographic Analysis

4.3 Hypothesis Testing :

By using AMOS 16.0, SEM is built for developing a model that represents the effect relationships among the variables in present research. SEM is used to assess the effects among the variables in the model. It contain the direct and linear paths that combine the latent variables with each other. The strong point of the SEM is that it has been one of the most useful multivariate analysis techniques because it is

capable of estimating multiple equations simultaneously and measuring latent variables as well as measurement error account into the estimation process(won,2004) .As well SEM is a particularly attractive choice when testing mediating variables in that in SEM, all of the relevant paths are directly tested and complications such as measurement error and feedback are incorporated directly into the model (Manolova and Demian,2008).

4.3.1 Normality

Because of the assumption that factor analysis and structural equation modeling SEM both require variables to be normality distributed , it was necessary to check the distribution of variables to be used in the analysis (Hair et al., 1998)

To test the normality of distributions of individual variables, kurtosis index and skew index were computed for each variable, The resulting indices are shown in table (11), skew index ranged between (-.231) and (-.687) and Kurtosis index ranged from (-.571)to (-1.218), the skew and kurtosis indices should not exceed an absolute value of 3 and 10 respectivly, the data in this study is regarding as normal for the purpose of SEM.

Table (11)
Assessment Of Normality

Variable	Skew	Kurtosis
UB4	-.687	-.571
UB3	-.428	-.926
UB2	-.532	-.833
UB1	-.573	-.807
BI3	-.546	-.669
BI2	-.669	-.619
BI1	-.662	-.673
FC1	-.458	-.993
FC2	-.231	-1.218
FC3	-.317	-1.166
SI1	-.541	-.617
SI2	-.555	-.696
SI3	-.516	-.882
SI4	-.475	-.907
PE1	-.635	-.673
PE2	-.364	-1.044
PE3	-.451	-.884
PE4	-.618	-.625
EE1	-.354	-.653
EE2	-.411	-.827
EE3	-.329	-.844
EE4	-.421	-.735

4.3.2 Interpretation Of The Findings :

The structural model results are illustrated in figure (8). Standardized regression weight and t-values for direct, indirect, and total effect are shown in table (12). Thus, the confirmation results of the proposed hypotheses are as follows:

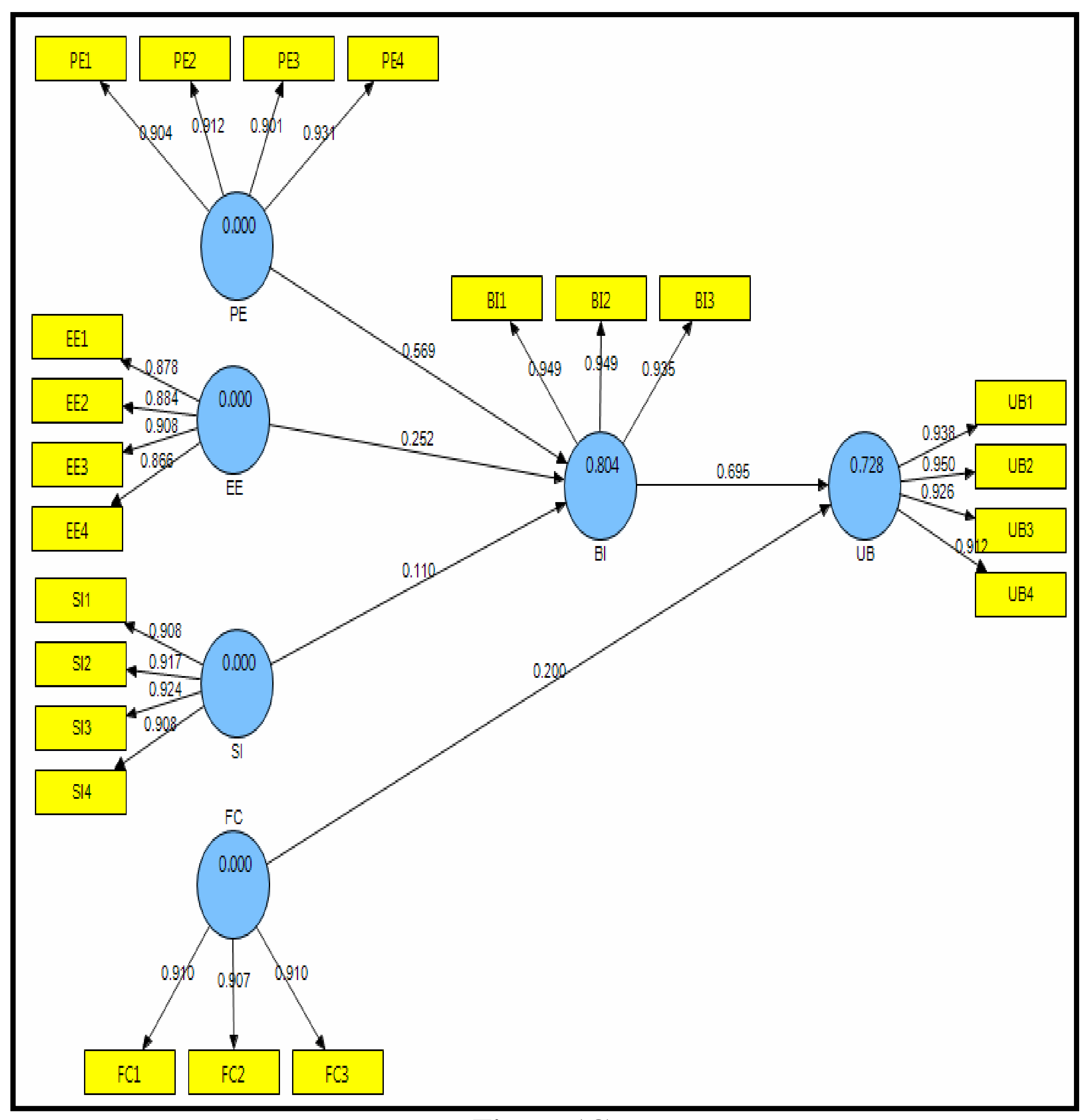


Figure (8)
Structural Model

$H1_a$: specifies that Performance Expectancy PE has a significant direct effect on users' Behavioral Intention BI to use online knowledge sharing , this hypothesis is verified (with the path coefficient = 0.569; t = 5.828). It shows that the higher level of performance expectancy PE will result in higher level of behavioral intentions to use online KS. As a result , $H1_a$ was accepted.

$H1_b$: specifies that Performance expectancy PE has a positive indirect effect on users' Usage Behavioral UB of online knowledge sharing , this hypothesis is verified (with the path coefficient = 0.396 ; t = 4.872).It shows that the higher level of users' PE will result in higher level of UB. As a result , H1b was accepted.

$H2_a$: specifies that Effort Expectancy EE has a positive direct effect on users' behavioral intention BI to use online knowledge sharing , this hypothesis was verified (with the path coefficient = 0.252; t = 2.006). It shows that the higher level of users' EE resulted in higher level of their BI. As a result , $H2_a$ was accepted.

$H2_b$: specifies that Effort Expectancy EE has a positive indirect effect on users' Usage Behavioral UB of online knowledge sharing , this hypothesis was verified (with the path coefficient = 0.175 ; t = 1.950). It shows that the higher level of users' EE resulted in higher level of their UB. As a result , $H2_b$ was accepted.

$H3_a$: specifies that Social Influence SI has a positive direct effect on users' behavioral intention BI to use online knowledge sharing , this hypothesis was rejected (with the path coefficient = 0.110 ; t = 0.885).It shows that Social Influence does not have a significant effect on BI. As a result , $H3_a$ was not approved .

$H3_b$: specifies that Social Influence SI has a positive indirect effect on users' Usage Behavioral UB of online knowledge sharing , this hypothesis was rejected (with the path coefficient = 0.076; t = 0.852).It shows that Social Influence does not have a significant effect on UB. As a result , $H3_b$ was not approved .

H4: specifies that Facilitating conditions FC has a positive direct effect users' Usage Behavioral UB of online knowledge sharing , this hypothesis was verified (with the path coefficient = 0.200 ; t = 2.577).It shows that the higher level of FC resulted in higher level of UB. As a result , H4 was accepted.

H5: specifies that Behavioral Intention BI has a positive direct effect on users'Usage Behavioral UB of online knowledge sharing , this hypothesis was verified (with the path coefficient = 0.695 ; t = 10.299).It shows that the high level of BI resulted in high level of UB. As a result , H4 was accepted.

Table (12)
Direct, Indirect and Total effect

Paths	Direct Effect		Indirect Effect		Total Effect	
	Path Coefficients	T-Value	Path Coefficients	T-Value	Path Coefficients	T-Value
PE --> BI	0.569	5.828	-------	-------	0.569	5.828
PE --> UB	-------	-------	0.396	4.872	0.396	4.872
EE --> BI	0.252	2.006	-------	-------	0.252	2.006
EE --> UB	-------	-------	0.175	1.950	0.175	1.950
SI --> BI	0.110	0.885	-------	-------	0.110	0.885
SI --> UB	-------	-------	0.076	0.852	0.076	0.852
FC --> UB	0.200	2.577	-------	-------	0.200	2.577
BI --> UB	0.695	10.299	-------	-------	0.695	10.299

**** $p < .001$, ** $p < .01$, * $p < .05$, based on two-tailed test; $t (p < .001) = 3.29$; $t (p < .01) = 2.58$; $t (p < .05) = 1.96$.*

4.3.3 Regression Analysis Values

The predictive power of a model can be assessed by R^2 values . AMOS provides the squared multiple correlation R^2 for each endogenous construct which indicate the amount of variance in the construct that explained by the model .The R^2 value for Behavioral Intention was 0.8036 for this model which indicates that more than 80% of the variance of Usage Behavior of the sample was explained by the Behavioral intention ,and 20% of the variance of Usage Behavior explained by other factors (Table 13).

Table (13)
Regression analysis R^2 values

Construct	R Square
Behavioral Intention BI	80%
Usage behavior UB	70%

In brief, the tests of the structural model showed that the Performance Expectancy, Effort expectancy have positive direct effect on Behavioral intention and positive indirect effect on Usage behavior, also Behavioral Intention and Facilitating Conditions have positive direct effect on Usage behavior , whereas Social Influence do not have a direct or indirect effect on Usage Behavior, as shown in Table (14)

Table (14)
Summary of the results of the hypothesis testing

Hypothesis	Result
H1a: Performance Expectancy EE has a positive direct effect on users' Behavioral Intention BI	Accepted
H1b: Performance expectancy PE has a positive indirect effect on users' Usage Behavioral UB	Accepted
H2a: Effort Expectancy EE has a positive direct effect on users' behavioral intention BI	Accepted
H2b:Effort Expectancy EE has a positive indirect effect on users' Usage Behavioral UB	Accepted
H3a:Social Influence SI has a positive direct effect on users' behavioral intention BI	**Rejected**
H3b: Social Influence SI has a positive indirect effect on users' Usage Behavioral UB	**Rejected**
H4: Facilitating conditions FC has a positive direct effect users' Usage Behavioral UB	Accepted
H5: Behavioral Intention BI has a positive direct effect users' Usage Behavioral UB	Accepted

4.4 Post Tested Research Model

After testing the model, the researcher found that all factors have positive effect on Usage Behavior of online KS except Social Influence, according to these results the model will be as follows :

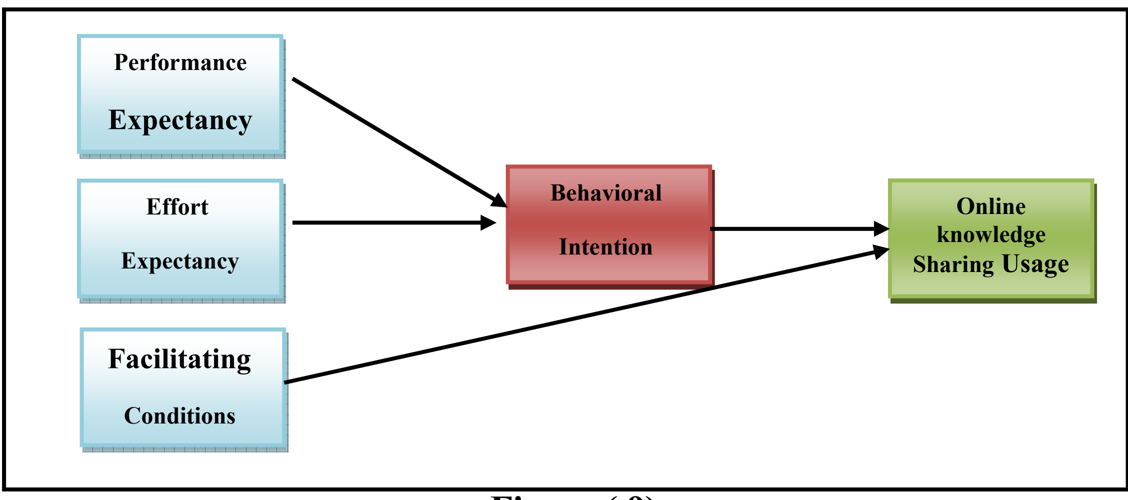


Figure (9)
Post Tested Model

Chapter Five
Discussion of Findings and Recommendations

5.1. Introduction

This chapter discusses research findings and conclusions building on the empirical quantitative data analysis derived in the previous chapter. Conclusions are presented in a general discussion, dealing with research questions. At the end of this chapter the researcher drew some suggestions and gave some recommendations and future research directions.

5.2. Discussion of the Findings

Having tested the research hypotheses and extracted the results of interest, the researcher provided a discussion that involved explanations of those results, as well as their congruence and incongruence with previous studies. Furthermore, all constructs in this research showed statistical adequacy in terms of reliability, validity and internal consistency.

5.2.1. Performance Expectancy and Behavioral Intention

It was found that PE has a positive direct effect on managers' Behavioral Intention (β=0.569); Actually it's the most powerful factor affecting behavioral intention to use online KS.

Although this result is inconsistent with the result of some studies (e.g Abu Baker et al.2013) it is consistent with the results of several previous research findings (e.g Venkatesh et al. 2003;Yu, 2012; Taiwo et al., 2013 and Tan,2013). they all agreed that performance expectancy is the most influential predictor for intention to use technology.

As it shown in the second chapter PE is defined by the degree to which manager believes that sharing knowledge electronically will help him or her to attain gains in job, these gains can be tangible (promotion, raises or bonuses),intangible (reputation, self-esteem) and community interest (exchange of practice related knowledge, interaction) (Taiwo, 2013).

In the contest of this research such result means that PE can help the mangers of knowledge training center to increase their intention to share knowledge online via the available sharing methods , if they are granted some benefits like extra degrees in the job evaluation, financial rewards or acknowledgement document, this would increase their intention to continue sharing knowledge and expertise online.

5.2.2 Effort Expectancy and Behavioral intention

The second Hypothesis in the current research posits that effort expectancy have a positive effect on intention to use online KS technology . The study has proven the above claim that effort expectancy is significantly and positively related to intention to use (β=0.256). This implies that training centers managers who perceived highly on the ease of use of online sharing media would have high intention to actual use of it. This result is consistent with Venkatesh et al. (2003) and Bedard et al. (2003) studies which stated that effort expectancy or perceived ease of use is a significant predictor for intention, also this result is in accordance with prior findings of (Sundaravej,2005; Pennington et al., 2006; Vluggen,2008; Mariaka et al., 2009; McCombs, 2011; Kasim et al.,2013), this result contradicts with the result of Wu, Tao and Wang (2007) who found that EE did not significantly affect the BI in 3G mobile communication services.

In the present research, effort expectancy referred to the amount of effort the managers must expend for Sharing knowledge online. The survey items that measured effort expectancy referred to the ease of using technology. This means that the more the manager felt it easy to use online KS the more likely they would have the intention to actual using it . The availability of professional development for technology use might increase technology use by managers in their training centers by reducing the individual concerns over the effort required to share their knowledge.

5.2.3 Social Influence and Behavioral intention

Among the five hypotheses, only the third hypothesis was disapproved. This hypothesis posits that social influence will have a positive effect on the managers' behavioral intention to share knowledge online . The results have disapproved this claim. Social influence did not emerge as a factor from principal component analysis implying that most of the managers gave different opinions on the items measuring it (β=0.110). Similar findings were also found by (Phichitchaisopa et al., 2013; Marika et al.,2009).

The finding from the analysis of the current research regarding to social influence is different from the results of UTAUT empirical validation by Venkatesh et al. (2003) , several possible reasons might exist. However, it should be recognized that Venkatesh et al. (2003) conducted the studies across technologies, organizations, industries, business functions, nature of use (voluntary VS. mandatory), and users' experience. Contrarily, the current research was conducted with a single time frame, which is the post-adoption period, without a consideration of moderators such as experience, gender, age, and voluntariness of research participants that may diminish or intensify the relationship between independent and

dependent variables. According to Venkatesh et al. (2003), the influence of society on behavioral intention will be stronger in mandatory setting. This may be a main reason why the social influence loses its significance when managers are not subject to pressure from others to share their Knowledge online, resulting in disappearance of the solid relationship between this construct and the behavioral intention in the current research model, It would be fair to conclude that the opinion of others about technology use is less important than other constructs .

5.2.4 Facilitating Conditions and Usage behavior

In the term of FC, Venkatesh et al. (2003) found that this construct did not have an effect on Behavioral Intention but did have a positive effect of the actual use of technology, similar result was found (β=0.200), It has been noted that a lack of facilitating conditions can be a barrier to the managers actual use of online KS; this result is consistent with (Ghalandari,2013; Dekar,2011) . This implies that infrastructure support, such as a good working environment, high-speed Internet access, technical support team are necessary. As suggested by Ghalandari (2013) managers should have resources and knowledge necessary to use online KS, thus decision makers need to acquire the basic knowledge and operation skills before using online KS. Also, when managers perceived adequate support (e.g., technical) to be available, accessible, and timely, they also perceived the use of technology to be relatively free from effort and this could have strengthened their intention to technology, suggesting that the environment in which managers engaged technology was more important than their beliefs about whether the people who perceived to be significant thought, should use technology or not.

5.2.5 Behavioral Intention and Usage behavior

Behavior intention has been determined to be an important indicator of the final use of online KS (β=.695) which is consistent with work of Almursalan (2012) and Venkatesh et al.(2003) This indicates that as Behavioral Intention increases then Use will increase as well Because behavioral intention has been reported to be a good predictor of use, the effect of behavioral intention on actual usage was investigated in this research to confirm the effect in an organizational setting, manager who has a negative feeling toward online sharing medias has been less likely to use it. Why the manager has a negative intention could be based on past experience, lack of physical support, or lack of institutional support(Almursalan,2012).

5.3 Conclusions:

This research offered the UTAUT model to explore the determinants which influence Managers' intention to use online KS . Based on the discussion of the findings displayed earlier, it is now possible to draw some conclusions out of the conducted research.

The results support the applicability of the UTAUT model to the analysis of managers' intention and behavior regarding online KS, also, results indicate that the main factors are performance expectancy, effort expectancy, which act as significant determinants to users' behavioral intention. Moreover, Performance expectancy was found to have the strongest direct effect on behavioral intention, whereas social influence was found to have no direct effect on behavioral intention, as well as indirectly significant effect on total use online KS .

In an organizational setting, decision makers need to understand that to encourage managers to share their knowledge online they need to have their effort expectancy reduced, the performance expectancy increased, and the facilitating conditions conducive to the technology use.

In another words when they appreciate the advantages of using online KS, they are more likely want to try it. When such technology appear easy to use and access, they will be more interested in them. When there is good technical infrastructure and violable supported team, managers will be more likely to actually use those.

5.4 Recommendation:

Building on the discussion of findings and the conclusions drawn from this research the practical recommendations are as follows:

1. The first recommendation is derived from the fact that performance expectancy have an important influence on the managers' intention and behaviors. Decision makers should identify most benefits that are expected by managers, this benefits could be bonus degrees in the annual evaluation, documented acknowledgements. This would raise their intention to share information electronically across multiple means.
2. Managers should be provided with enough awareness about the importance of online KS practicing. This could be achieved through attending relevant training workshops.
3. Learning new technology tasks can be challenging, therefore, training courses that might improve the IT skills especially for older managers, who do not have experience in the use of modern technology especially social networking sites (eg: Facebook and Twitter) should be held.
4. Designers of websites dedicated to sharing knowledge should pay attention to the need of making these sites easy to access , easy to

use, uncomplicated, and do not require a high effort to learn how to use and interact with it.

5.6 Limitations And Future Research

Although this research is the first one considering the reality of online KS usage applied to a wide range in the Middle East and North Africa, the research has several limitations that have an effect on the reliability and validity of the findings.

The first limitation concerns the sample. Unfortunately, this research has been applied during a period of time when some countries face wars and revolutions, such as Syria and Egypt, which led to decline the number of operating centers , and thus reduced number of responses obtained from those countries .It is hoped that this research might be repeated after passing this hard circumstances to enlarge the research sample with respondents from the four countries involved in the research(Jordan, Syria, Egypt and Oman) , in addition to other countries such as Sudan and the Arab Gulf states in order to get a clear image and disseminate the results to the MENA region .

Moreover, this research mainly conducted a cross-sectional study, it did not determine the change in user reactions over time. However, user behavior is dynamic. A future research may provide more insights on user behavior development.

Additionally, our model might also suffer from the fact that other possible factors influencing the online KS usage were not included in the model. therefore, for the improvement of the model validity, future research could do some extension and re-operationalization of constructs.

Mediators and moderators of intention – online KS usage relationship could be explored, to improve the understanding of this relationship. further investigation is needed with respect to the range of age that might be considered when examining technology acceptance behavior, especially as the current generation of users are savvy, young and educated, whereas most research to date has focused on ranges within the workplace (usually older). This suggests that more research with younger users and is likely to be fruitful.

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Web Pages:

HTTP 1: Telecentre Organization
http://community.telecentre.org/profile/telecentre?xg_source=activity

HTTP 2 : Arabic Mena Telecentre , http://mogtamaa.telecentre.org/ .

HTTP 3 : Jordan knowledge stations , www.ks.gov.jo/english .

HTTP 4 : The Information Technology Authority ITA (e-Oman) ,
http://www.ita.gov.om/ITAPortal/ITA/

HTTP 5 : Egypt Information and Communication Technology Trust Fund (ICT-TF) , http://www.ictfund.org.eg/

HTTP 6 : Arabic Mena Telecentre,
http://community.telecentre.org/profiles/blogs/syrian-telecentre-project-a-model-for-development

Appendix (I)
Questionnaire Referees Form



Mutah University.
Faculty of Business Administration.
Department of Business Administration.

The researcher is conducting a study entitled " Investigation of Factors Affecting online KS Usage Behavior of knowledge Training Centers in the MENA Region". which coming in partial fulfillment of the requirements for the degree of MBA in business administration and management information system department in Mutah University.

So please read the items of this questionnaire carefully and answer them accurately, note that the information contained in this questionnaire will be treated confidentially and will only be used for research purposes only.

With all my respect.
The Researcher : Seham Ahmad Aljaafreh.

Part I: Background Information

Put a (X) beside your answer:

1. **Name of the institution to which you belong**
   - ☐ Knowledge Stations program (Jordan)
   - ☐ Oman Digital Organization (Oman)
   - ☐ Access centers (Syria)
   - ☐ Telecentres (Egypt)
2. **The region**
   - ☐ South
   - ☐ North
   - ☐ Center
3. **Gender**
   - ☐ Male
   - ☐ Female
4. **Age**
   - ☐ 25 or less
   - ☐ 26 – 35
   - ☐ 36-45
   - ☐ 46 – 55
   - ☐ 56 or above
5. **Practical experience**
   - ☐ Less than a year
   - ☐ 2-5 years
   - ☐ 6-10 years
   - ☐ More than 10 years

Note : In the part 2 please note that " online KS " = all electronic media you can use to share knowledge (e.g. Face book, Twitter, Email, Weblogs, Organization Web site)

Part 2: Effecting Factors					
Performance Expectancy (PE)	**Strongly Agree**	**Agree**	**Neutral**	**disagree**	**Strongly disagree**
PE1: I find using online knowledge sharing useful .					
PE2: I think using online knowledge sharing enable me to accomplish tasks more quickly.					
PE3: I think that using online knowledge sharing increase my productivity.					
PE4: I think that using online knowledge sharing increases my chances of getting a good grade in annual evaluation					
Effort Expectancy (EE)	**Strongly Agree**	**Agree**	**Neutral**	**disagree**	**Strongly disagree**
EE1: My interaction with online knowledge sharing is clear and understandable.					
EE2: It is easy for me to become skillful at in using online knowledge sharing .					
EE3: I find using sharing Knowledge online is easy to use.					
EE4:Learning to use sharing knowledge online is easy to me					
Social Influence (SI)	**Strongly Agree**	**Agree**	**Neutral**	**disagree**	**Strongly disagree**
SI1: People who influence my behavior think that I should use online knowledge sharing.					

SI2: I think that not participating in using online knowledge sharing is falling me behind others.					
SI3: In general, the foundation has supported online knowledge sharing .					
S14: I expect to share knowledge online because people around me do.					
Facilitating Conditions (FC)	**Strongly Agree**	**Agree**	**Neutral**	**disagree**	**Strongly disagree**
FC1: my foundation have the resources necessary to enable online knowledge sharing .					
FC2: I have the technical knowledge necessary to online knowledge sharing.					
FC3: A specific person (or group) is available for assistance with online knowledge sharing difficulties.					
Behavioral Intention (BI)	**Strongly Agree**	**Agree**	**Neutral**	**disagree**	**Strongly disagree**
BI1: I intend to use online knowledge sharing in the future to assess my abilities.					
BI2: I Will constantly try to use online knowledge sharing in my daily life					
BI3: I do not plan to continue using Internet to share knowledge with others					

Part 3: The Actual Usage					
Times to use of online means to share knowledge (UB)	**Never**	**Monthly**	**Weekly**	**Daily**	**More than one time per day**
UB1 : Website of the Foundation					
UB2 :Email					
UB3: Data and reporting system					
UB4: Social networking sites (Facebook, Twitter, etc..)					

Appendix II
Arabic Questioner



جامعة مؤتة

كلية ادارة الاعمال

قسم ادارة الاعمال

يقوم الباحث بإجراء دراسة بعنوان " التحقيق في العوامل المؤثرة في سلوك مشاركة المعرفة عبر الانترنت لمدراء مراكز التدريب في منطقة الشرق الأوسط وشمال إفريقيا" و ذلك كجزء من متطلبات الحصول على درجة الماجستير في إدارة الأعمال.

لذا نرجو منكم قراءة فقرات الاستبانة بتمعن، و الإجابة عنها بدقة علما بأن المعلومات الواردة في هذه الاستبانة سيتم التعامل معها بسرية تامة، و لن تستخدم إلا لأغراض البحث العلمي فقط.

شاكرين لكم تعاونكم

الباحثة : سهام أحمد الجعافرة

الجزء الأول : معلومات شخصية

الرجاء ضع حرف X بجانب إجابتك

1. المؤسسة التي تعمل بها

- ☐ محطات المعرفة الأردنية
- ☐ منظمة عمان الرقمية
- ☐ منظمة القضارف الرقمية
- ☐ مراكز النفاذ (سوريا)
- ☐ مراكز التيليسنتر (مصر)

2. الجنس

- ☐ أنثى
- ☐ ذكر

3. العمر

- ☐ 25 سنة أو أقل
- ☐ 35-26
- ☐ 45 – 36
- ☐ 55 – 46
- ☐ 56 سنة أو أكثر

4. الخبرة العملية

- ☐ أقل من سنة
- ☐ من 2 – 5 سنة
- ☐ من 6-10 سنة
- ☐ أكثر من 10 سنوات

ملاحظة : في الجزء الثاني من هذا الاستبيان الرجاء الملاحظة بأن عبارة " مشاركة المعرفة عبر الانترنت " = كل الوسائل الالكترونية التي يمكنك استخدامها لمشاركة المعرفة (مثال . فيس بوك ، تويتر ، البريد الالكتروني ، المدونات ، الموقع الالكتروني للمؤسسة)

الجزء 2 : عوامل التأثر					
الأداء المتوقع	**موافق بشدة**	**موافق**	**محايد**	**غير موافق**	**غير موافق**
أجد بأن مشاركة المعرفة عبر الانترنت مفيدا					
اعتقد بأن مشاركة المعرفة عبر الانترنت يمكنني من أداء مهامي بسرعة أكبر					
أعتقد بأن استخدام مشاركة المعرفة عبر الانترنت يزيد من إنتاجيتي					
أعتقد بأن مشاركة المعرفة عبر الانترنت يزيد من فرصتي في الحصول على درجات عالية في التقييم السنوي					
الجهد المتوقع	**موافق بشدة**	**موافق**	**محايد**	**غير موافق**	**غير موافق بشدة**
التفاعل مع مشاركة المعرفة عبر الانترنت واضح ومفهوم					
من السهل بالنسبة لي أن أصبح ماهراً في استخدام مشاركة المعرفة عبر الانترنت					
أجد بان استخدام مشاركة المعرفة عبر الانترنت سهلاً					
أجد تعلم مشاركة المعرفة عبر الانترنت سهلا بالنسبة لي					
التأثير المجتمعي	**موافق بشدة**	**موافق**	**محايد**	**غير موافق**	**غير موافق بشدة**
الأشخاص المؤثرون في سلوكي يعتقدون بأنه يجب علي استخدام مشاركة المعرفة عبر الانترنت					
اعتقد بأن عدم استخدام مشاركة المعرفة عبر الانترنت يجعلني متأخرا عن الآخرين					
بشكل عام مؤسستي تدعم مشاركة المعرفة عر الانترنت					
أنا أستخدم وسائل مشاركة المعرفة عبر					

الانترنت لأن الأشخاص من حولي يقومون بذلك					
الظروف المساعدة	موافق بشدة	موافق	محايد	غير موافق	غير موافق
مؤسستي تمتلك المصادر اللازمة لتمكين مشاركة المعرفة الكترونياَ					
لدي الخبرة التقنية اللازمة لمشاركة المعرفة الكترونياً					
يوجد شخص (مجموعة) للمساعدة في حل صعوبات مشاركة المعرفة عبر الانترنت					
النية السلوكية	موافق بشدة	موافق	محايد	غير موافق	غير موافق
أنوي مشاركة المعرفة عبر الانترنت في المستقبل لدعم إمكاناتي					
سأحاول دائما مشاركة المعرفة عبر الانترنت في حياتي اليومية					
لا أخطط للاستمرار في مشاركة المعرفة عبر الانترنت					

الجزء الثالث : الاستخدام الفعلي

عدد مرات استخدام الوسائل الالكترونية لمشاركة المعرفة	مطلقاً	شهرياً	أسبوعياً	يومياً	أكثر من مرة يوميا
الموقع الالكتروني للمؤسسة					
البريد الالكتروني					
نظام البيانات والتقارير					
مواقع التواصل الاجتماعي					

Appendix III
Geographical distribution and count of knowledge stations

Region	Governate	KSs Count	KSs Count in region
Northen	Irbid	26	**65**
	Jarash	11	
	Ajloun	11	
	Mafraq	17	
Central	Amman	33	**74**
	Zarqa	15	
	Balqa	17	
	Madaba	9	
Southern	Karak	19	**53**
	Tafila	8	
	Maan	13	
	Aqaba	13	
KSs Count in jordan		**192**	**192**

Source : www.ks.gov.jo

Appendix IV
Summary of Core Previous Studies

Author(S)/Year	Title Of The Study	Adopted Model	Findings Associated with the current study
Tan / 2013	Students' Adoptions And Attitudes Towards Electronic Placement Tests: A UTAUT Analysis	**UTAUT**	▪ Performance expectancy positively affects subjects' intention to take e-placement tests. –SIGNIFICANT ▪ Effort expectancy positively affects subjects' intention to take e-placement tests. –SIGNIFICANT ▪ Social influence positively affects subjects' intention to take e-placement tests. –SIGNIFICANT ▪ Facilitating conditions positively affect actual use behavior.-NOT SIGNIFICANT ▪ Subjects' intentions to take e-placement tests positively affect actual use behavior. –SIGNIFICANT
Taiwo& Downe / 2013	The Theory Of User Acceptance And Use Of Technology (Utaut): A Meta-Analytic Review Of Empirical Findings	**UTAUT**	▪ only the relationship between performance expectancy and behavioral intention is strong, while the relationships between effort expectation, social influence and behavioral intention are weak. ▪ the relationship between facilitating condition, behavioral intention and use behavior is also weak.
Phichitchaisopa1& Naenna / 2013	Factors Affecting The Adoption Ofhealthcareinformation Technology	**UTAUT**	▪ Performance expectancy, effort expectancy, and facilitating conditions which act as

			significant determinants to users' behavioral intention ▪ social influence was found to have no direct effect on behavioral intention, as well as no directly significant effect on total use of healthcare technology behavior
Kasim ,Yaacob &Malim / 2013	Factors Promoting Knowledge Sharing Using Virtual Mode For The Researchers: A Literature Review	**UTAUT**	▪ this study suggested five important predictors or key success factors for promoting knowledge sharing and collaboration – performance expectancy, effort expectancy, social influence, facilitating condition and attitude towards knowledge sharing
Abu Bakar, Abdul Razak & Abdullah / 2013	Assessing The Effects Of UTAUT And Self-Determination Predictor On Students Continuance Intention To Use Student Portal	**UTAUT** **Self-Determination theory**	▪ performance expectancy and intrinsic motivation do not have any statistically significant effect on continuance intention to use UCSA student portal. ▪ effort expectancy, social influence and facilitating condition were shown to significantly influence continuance intention
Zamiri & Baqutayan/2012	Exploring Factors That Influence Knowledge Sharing Behavior Via Computer	**Modified TAM**	▪ perceived usefulness is positively correlates to the students' intention to share knowledge in computer
Yu / 2012	Factors Affecting Individuals To Adopt Mobile Banking: Empirical Evidence From The Utaut Model	**UTAUT**	▪ individual intention to adopt mobile banking was significantly influenced by social influence, perceived financial cost,

			performance expectancy, and perceived credibility, in their order of influencing strength. The behavior was considerably affected by individual intention and facilitating conditions
Tanakinjal, Andrias, Sondoh& Ibrahim / 2012	Relationship Between Perceived Benefits And Social Influence Towards Self-Disclosure And Behavioral Intention In Web 2.0	**Modified TRA**	▪ there is no significant influence of perceived benefits on self-disclosure intention perceived benefits = perceived ease of use + Perceived Usefulness)
Mursalin / 2012	Information System Adoption And Usage: Validating Utaut Model For Bangladeshi Smes	**UTAUT**	▪ the adoption and usage of IS by the Bangladeshi SMEs are strongly influenced by performance efficiency ,effort efficiency and facilitating condition and moderately influenced by social influence
Ghalandari / 2012	The Effect Of Performance Expectancy, Effort Expectancy, Social Influence And Facilitating Conditions On Acceptance Of E-Banking Services In Iran: The Moderating Role Of Age And Gender	**UTAUT**	▪ performance expectancy, effort expectancy, social influence and facilitating conditions had a positive and significant effect on users' behavior and intention to use e-banking services and variables of age and gender moderated the relationships between these variables
Mccombs / 2011	A Path Analysis Of The Behavioral Intention Of Secondary Teachers To Integrate Technology In Private Schools In Florida	**UTAUT**	▪ Behavioral Intention is positively related to system usage . ▪ There are 2 strong factors that affect teachers‘Behavioral Intention: Performance Expectancy Effort Expectancy Social

			Influences from the had the smallest influence on a teacher‘s Behavioral Intention to use technology in the classroom ▪ Facilitating Conditions was not a significant factor in the path o analysis
Dekar , Mohammed & Jeremy / 2011	An Investigation Into The Factors Influencing Consumers To Use E-Services Of Indonesian Airlines: The Role Of Motivation	**UTAUT**	▪ Intention to use was found to be statistically significant to positively influence e-Services usage ▪ behavioral intention to use is influenced by the effort expectancy, social influence, outcome expectancy ▪ The findings of the study did not statistically support the significance of facilitation conditions on e-Services usage
Mariaka&Oboko/2009	Understanding Intention To Usecomputer Assisted Audit Tools And Techniques (Caatts) Using Utaut Model: Perspectives Of Auditors In Kenya National Audit Office (Kenao)	**UTAUT**	▪ performance expectancy, effort expectancy, facilitating conditions and professional influence, affect the probability that auditors will adopt and use CAATTs. ▪ age, gender and experience none had a signifi cant effect on intention for auditors
Vluggen / 2008	Compatibility And Technology Acceptance Consolidating, Validating And Extending Concepts	**Modified UTAUT**	▪ performance expectancy does have a positive effect on behavioral intention when it concerns younger people ▪ effort expectancy does have a positive effect on behavioral intention; however this effect is diminished when moderated by age,

			gender, and experience
Wu , Tao & Yang / 2007	Using Utaut To Explore The Behavior Of 3g Mobile Communication Users	**UTAUT**	▪ all the tested independent factors have positive impact on behavioral intention except Effort expectancy . ▪ The consumers of 3G mobile telecommunication o services did not think that "effort expectancy" will lift the "behavioral intention" of the 3G mobile telecommunication services.
Ma, Clark & Li / 2006	Cognitive Style And Acceptance Of Online Community Weblog Systems	**UTAUT**	▪ all the direct effect hypotheses were supported that's mean all the tested factors have positive impact on intention to use facilitating condition is the strongest factor ▪ social influence is the weakest
Sundaravej / 2005	Empirical Validation Of Unified Theory Of Acceptance And Use Of Technology Model	**Modified UTAUT**	▪ effort expectancy, performance expectancy, anxiety, and self-efficacy are significant factors to determine the students' acceptance on Blackboard. ▪ social influence, which is combined with attitude toward using technology, yields an insignificant effect on the behavioral intention